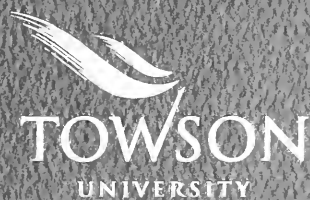




Graduate Catalog

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2004-2005



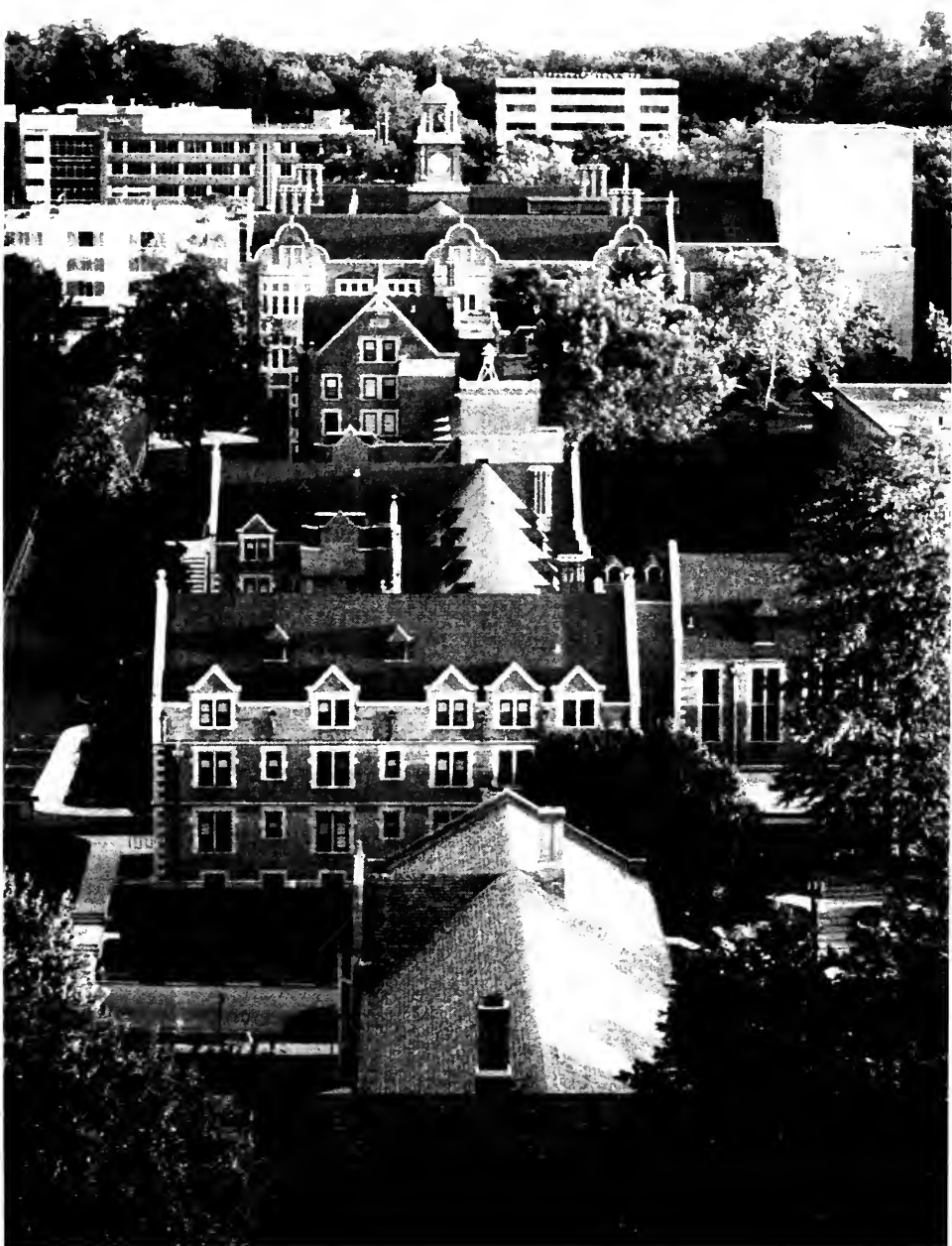
# Towson University Graduate Catalog 2004-2005

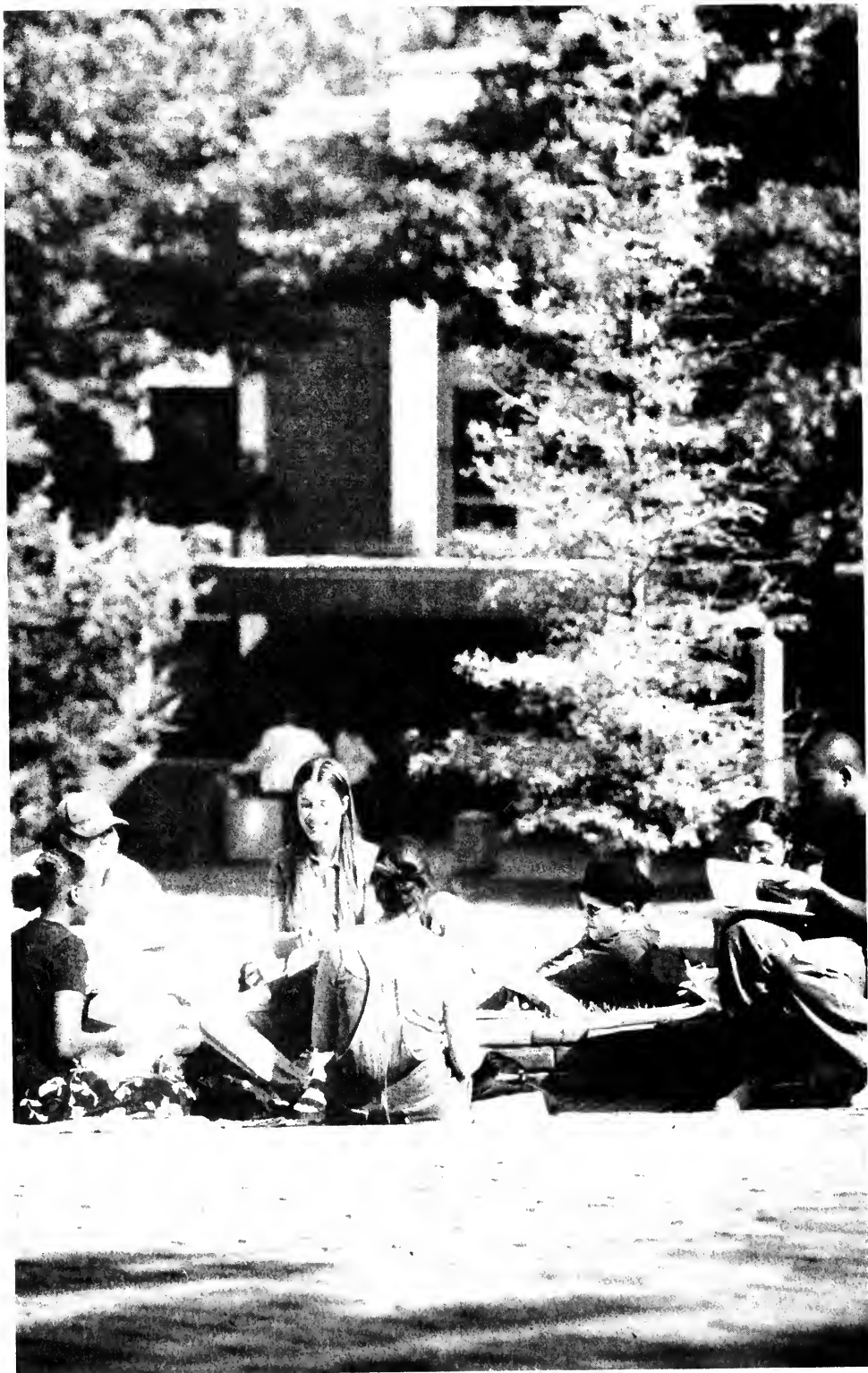
## Accreditation

Towson University is accredited by the Middle States Association of Colleges and Schools. The university is a member of the Council of Graduate Schools in the United States and the Northeastern Association of Graduate Schools.

*Towson University is in compliance with federal and state laws and regulations that prohibit illegal discrimination. The university does not discriminate on the basis of sexual orientation.*

Towson University Graduate Catalog  
Volume XXXVI 2004-2005







# Academic Calendar

## 2004–2005

Information about registration dates and times can be found online at <http://students.towson.edu>.

### Fall Semester 2004

#### August

- 30 Classes begin.  
Change of schedule period begins.

#### September

- 6 Labor Day (no classes).
- 8 Change of schedule period ends. Last day to drop a course with no grade posted to academic record. Last day to add a course.
- 15 Deadline for submitting graduation application for January.
- 27 Last day to withdraw from first 7-week courses with a grade of W.

#### October

- 15 Mid-semester and end of first 7-week courses.
- 18 Second 7-week courses begin.

#### November

- 10 Last day to withdraw from full semester courses with a grade of W.  
Last day to change to or from Pass or Audit grading options.
- 15 Last day to withdraw from second 7-week courses with a grade of W.
- 25-26 Thanksgiving holiday—no classes.
- 29 Classes resume.

#### December

- 10 Last day of classes (last Saturday classes meet December 4).
- 11 Final examinations begin.
- 17 Last day of examinations and end of semester.

#### January

- 9 Commencement.

## Minimester 2005

### January

- 3 Minimester begins.
- 3-4 Minimester change of schedule period.
- 17 Martin Luther King Jr. Day (no classes).
- 21 Minimester ends.

## Spring Semester 2005

### January

- 26 Spring classes begin. Change of schedule period begins.

### February

- 1 Deadline for submitting graduation application for May.
- 3 Change of schedule period ends. Last day to drop a course with no grade posted to academic record. Last day to add a course.
- 23 Last day to withdraw from first 7-week courses with a grade of W.

### March

- 15 Mid-semester and end of first 7-week courses.
- 16 Second 7-week courses begin.
- 20-27 Spring Break.
- 28 Classes resume.

### April

- 6 Last day to withdraw from full semester courses with a grade of W. Last day to change to or from Pass or Audit grading options.
- 13 Last day to withdraw from second 7-week courses.

### May

- 12 Last day of classes (last Saturday classes meet May 7).
- 13 Final examinations begin.
- 19 Last day of examinations and end of semester.
- TBA Commencement.

### June

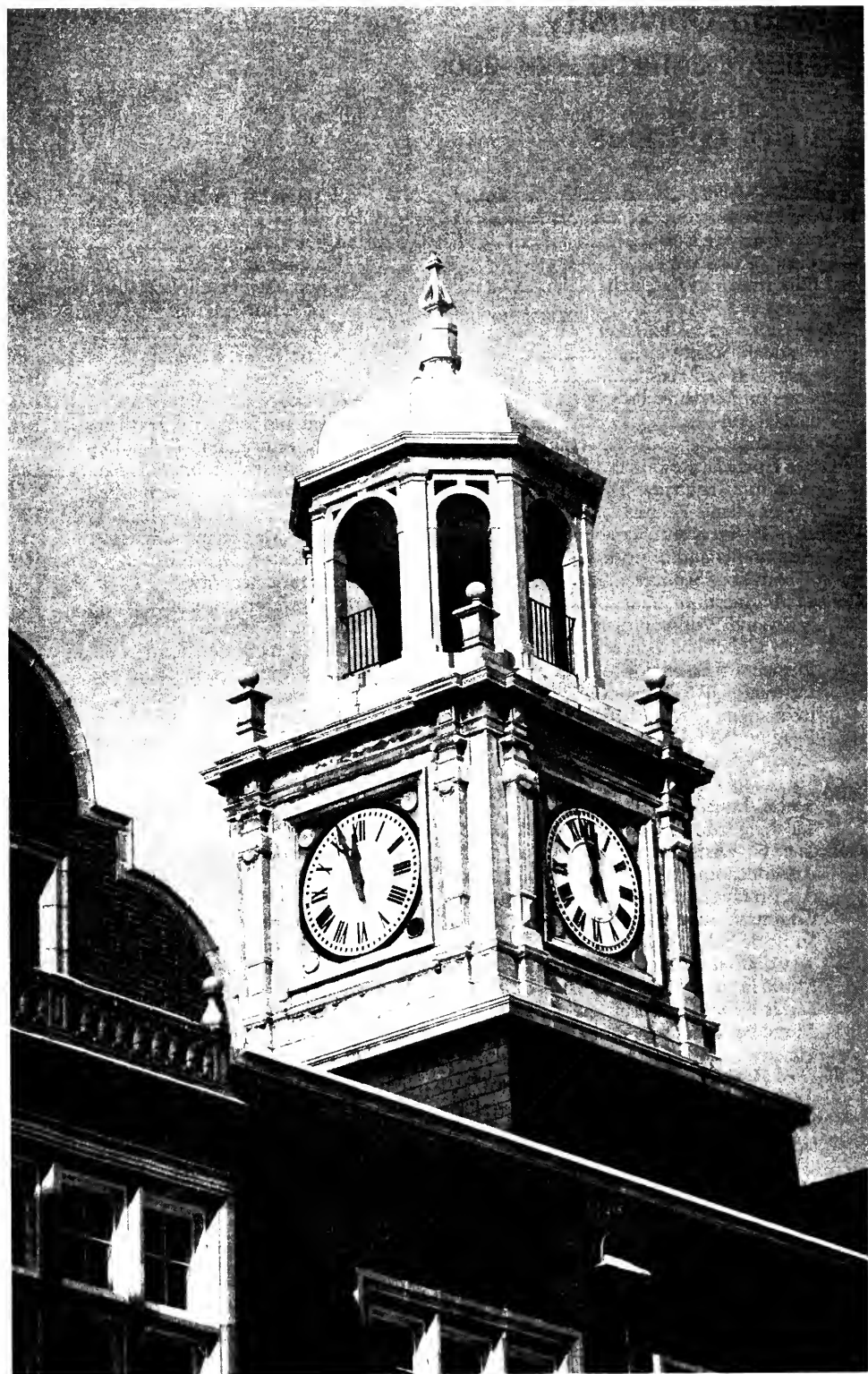
- 1 Deadline for submitting graduation application for September.

# Towson University

## GRADUATE CATALOG 2004-2005

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# Towson University

## History

The institution known today as Towson University opened its doors in 1866 in downtown Baltimore as the Maryland State Normal School—the only institution devoted exclusively to the preparation of teachers for the public schools of Maryland. The first class consisted of 11 students.

In 1915 the school moved to Towson. By 1935 it established the Bachelor of Science degree in education and changed its name to Maryland State Teachers College at Towson. In 1946 it introduced an arts and sciences program, and in 1963 the institution expanded its offerings in the arts and sciences and became Towson State College.

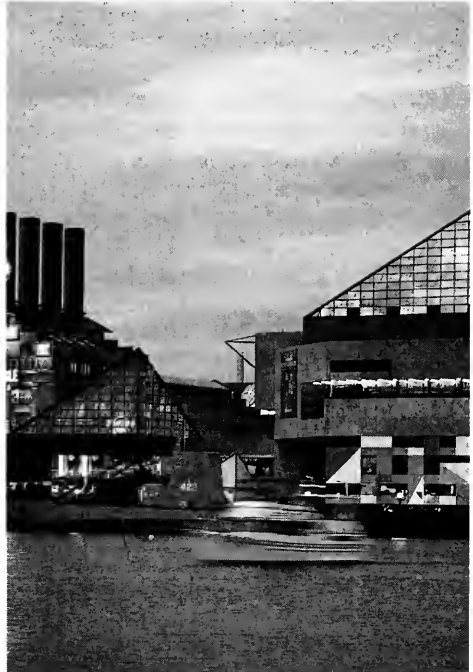
Towson was granted university status on July 1, 1976, in recognition of its development into a comprehensive university. In 1988 Towson State University joined the University System of Maryland. On July 1, 1997, Towson State University became Towson University, a change that reflects its evolution from a state-supported to a state-assisted institution. As of January 2004, the university has graduated 97,272 students. Since 1960, Towson University has awarded 12,403 advanced degrees.

Towson University enrolls and graduates more undergraduate students from the region than any other institution. Enrollment for the 2003 fall semester was 13,981 undergraduates and 3,207 graduate students.

## The Campus

The university is situated on a beautifully landscaped 328-acre campus in the suburban community of Towson, Md., just eight miles north of downtown Baltimore. Students have easy access to the many cultural advantages of the city of Baltimore — the Peabody Conservatory of Music and Library, the Enoch Pratt Free Library, the Walters Art Museum, the Baltimore Museum of Art, Meyerhoff Symphony Hall, the Lyric Theatre, Center Stage and many other cultural centers necessary for a well-rounded university experience.

Campus buildings and facilities give excellent support to the various university programs. The inside back cover of this catalog provides a map of the campus, and Appendix A describes the campus facilities.



## Letter from the Dean of the College of Graduate Education and Research

Towson University introduced its first graduate degree program, a master's in elementary education, in 1958. Since then, the Graduate School has grown to offer nearly 60 graduate degrees and certificate programs serving more than 3,000 students. The College of Graduate Education and Research continues to help thousands stay ahead of change and in top demand by offering programs in the liberal and fine arts, teacher education, allied health fields, computer and information technology, natural sciences, social sciences, various professional disciplines and interdisciplinary areas.

The full- and part-time programs are led by nationally prominent faculty who combine theory and applied, practical knowledge while encouraging collaboration on research projects and creative productions. Students have the opportunity to learn in an environment complemented by the diverse perspectives and experiences of their peers who hail from a variety of geographic locations, cultures and ethnic backgrounds.

As the metropolitan university of Maryland, Towson offers a valuable, yet affordable education that blends advanced levels of study with innovative conveniences. Graduate students may register online, utilize academic and career services, enjoy small class sizes and accessible faculty. Classes are offered both during the day and in the evening at the suburban Baltimore campus and at off-site locations in Harford, Baltimore, Montgomery and St. Mary's counties.

In 2002-2003, Towson was awarded nearly \$18 million in research grants and contracts. These funds have enabled TU to offer research opportunities to Towson students, support the scholarly activities of our faculty and engage in partnerships with business, community and government agencies.

As the demands of the work force change, the College of Graduate Education and Research will strive to prepare students by offering a sound balance of theory and application, and continue doing what we do best – bringing teaching and learning together to provide an excellent learning experience.

A handwritten signature in black ink, appearing to read 'Jin K. Gong', with a stylized, cursive script.

Jin K. Gong  
Dean, College of Graduate Education and Research  
Associate Vice President, Research



## THE COLLEGE OF GRADUATE EDUCATION AND RESEARCH

Enrollment in the Graduate School has continued to grow, with the 2003 fall student headcount being the highest ever, at 3,207. A team of administrators and staff in the college are committed to providing students with quality educational programs at the post-baccalaureate level and the highest level of student support services.

Overall, the unique aspect of TU's graduate education is providing students with cutting-edge courses and programs of study to develop the specific skills and knowledge needed by career professionals. TU has accepted the challenge set out by the Maryland Higher Education Commission to provide innovative graduate courses and programs that respond to specific state, regional and national work force demands. Moreover, many enrolled graduate students are working full time, so graduate courses are offered at convenient times and at off-campus sites as well as at the main TU campus.

TU currently offers nearly 60 graduate programs at the certificate, master's and doctoral levels. In addition, the College of Graduate Education and Research will develop more applied graduate programs as the needs of students, businesses and the community continue to grow. Faculty from across the university community and professors of practice work together in graduate education. Many of the faculty members are nationally prominent scholars who encourage graduate students to collaborate on faculty research projects and creative productions.

To provide the best possible education for its graduate students the College of Graduate Education and Research is guided by its vision and mission for graduate education.

### Graduate Studies Committee

The Graduate Studies Committee, a committee of the University Senate, determines Graduate School policy and is responsible for graduate curriculum and standards.

The voting membership comprises six members of the faculty, two program directors and two graduate students. The dean of the College of Graduate Education and Research and the director of the library are *ex officio* members.

The Graduate Studies Committee also hears student appeals that are related to academic matters. The appeals process is described in Appendix E.

### Administration

The dean and staff of the College of Graduate Education and Research administer the Graduate School and implement the policies established by the Graduate Studies Committee. On all matters of curriculum and academic requirements for individual graduate programs, the faculty contacts are the program directors.

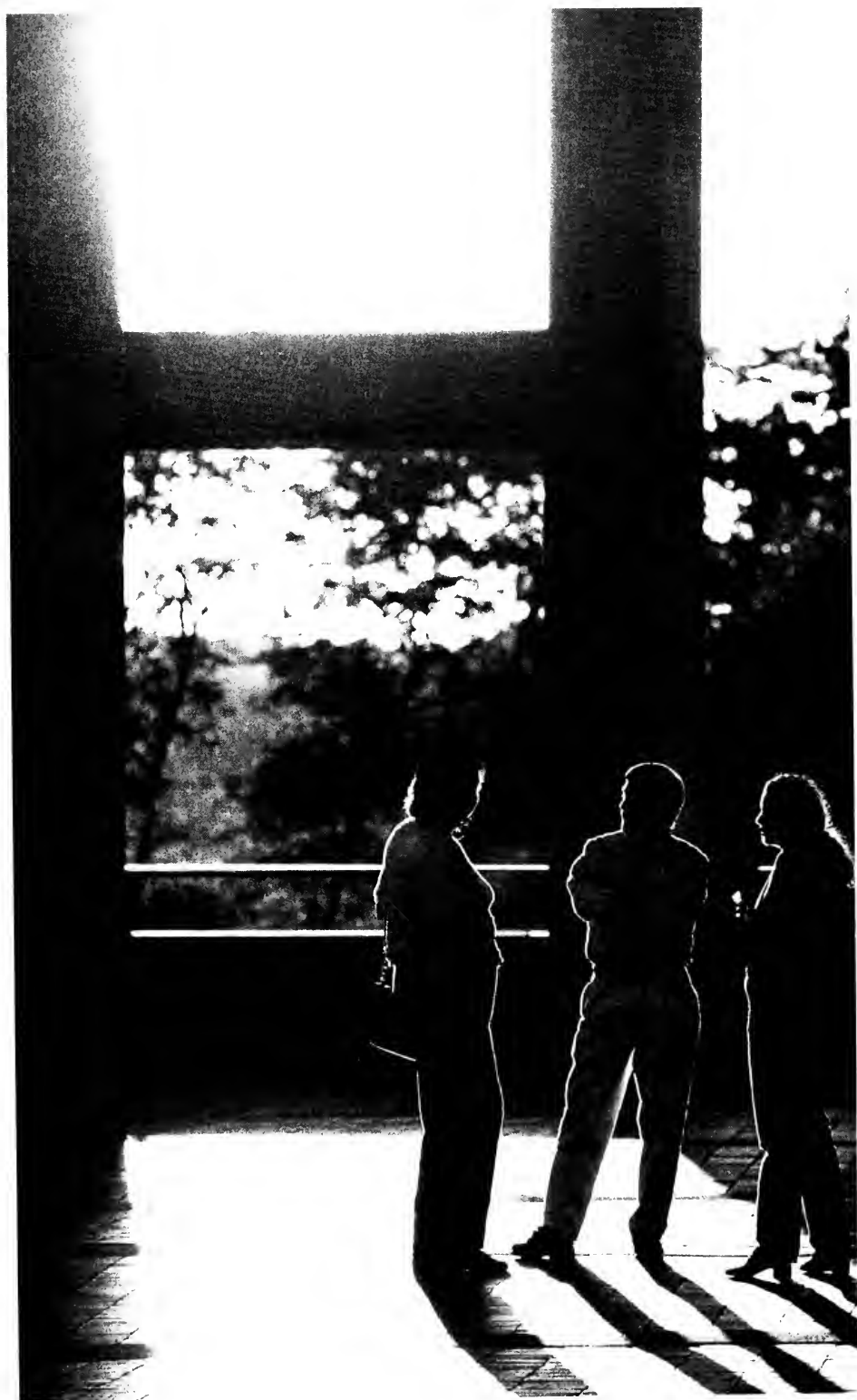
### Graduate School Office

The office, located on the second floor of 7800 York Road, is open Monday through Thursday, 8 a.m.-6 p.m. and Friday, 8 a.m.-5 p.m. (except for scheduled holidays). During registration, the office is open in the evening according to the registration schedule.

For more information, contact:

Graduate School Office  
Towson University  
8000 York Road  
Towson, MD 21252-0001  
410-704-2501

<http://grad.towson.edu>



# Procedures and Policies

## APPLICATION AND ADMISSION TO THE GRADUATE SCHOOL

The application process is administered through the Graduate School Office. To request a complete admissions package, contact the Graduate School Office at 410-704-2501, 1-888-4TOWSON or [grads@towson.edu](mailto:grads@towson.edu). To apply online, please visit our Web site at <http://grad.towson.edu>.

The Graduate School at Towson University admits applicants whose academic and personal qualifications give promise of success in graduate study. The applicant must hold a baccalaureate degree from a regionally accredited college or university, or from a Maryland college or university that is approved by the Maryland Higher Education Commission, or the equivalent of this degree from another country. Those admitted students who are degree seeking graduate students, non-degree students with a load of 6 credits or more, and all international graduate students must meet the university's immunization policies prior to registration. Please refer to page 141 for more details.

### Full Admission

Students admitted to full status must meet the basic minimum requirements of the Graduate School plus the additional requirements of the individual program.

In order to meet the basic minimum requirements for full admission to the Graduate School an applicant must have (1) earned a baccalaureate degree with a minimum grade point average of 3.00 (on a 4-point scale) in either the cumulative credits of the degree or the last 60 credits of the degree or (2) earned a master's degree or doctorate from a regionally accredited college or university.

In cases where the above minimum standards are not met, the last 60 credits may include courses taken beyond the baccalaureate

degree that are 300-level or higher. Courses used for admissions purposes may not be applied toward the graduate degree.

Since some individual programs may have additional requirements and enrollment restrictions, meeting the above minimum requirements may not ensure admission to a specific program. Please refer to the program listing for specific requirements.

### Conditional Admission

Admission with conditions may be granted to applicants whose academic achievement does not meet the standard required for regular admission or whose Department requirements are incomplete. See individual program descriptions for specific requirements. Students admitted to a program with conditions must satisfy requirements and correct any deficiencies as determined by the program director. The letter of admission contains instructions requiring the student to discuss the conditions with the program director. Requirements that must be completed to continue in the program, and the timetable for completing the requirements, are listed on a letter prepared by the program director and sent to the student.

The minimum undergraduate grade point average for conditional admission may be waived for an applicant whose undergraduate degree was obtained at least ten years earlier, and who can document a minimum of five years of successful working experience in a field relevant to the applicant's program. The candidate's application to the Graduate School must be supported in writing by the program director. Candidates must meet all other entrance requirements of the program.

### Exception to Policy

An applicant who is a professional with significant work experience in a field relevant to the program and whose undergraduate degree

was obtained at least 10 years prior to his or her application to the Graduate School, may petition the dean of the Graduate School for an exception to policy regarding the minimum GPA. This request should include documentation of at least five years of successful work experience in the relevant field and at least two letters of recommendation supporting the request from relevant supervisors. The petition will be reviewed by the program director who will assess the applicant's qualification for the program and will inform the dean in writing of his or her recommendation for conditional admission.

### Non-Degree Enrollment

Students may elect to enroll for graduate courses as non-degree students. Students generally choose non-degree status when (1) their academic goal is not completion of a degree or certificate program; (2) they wish to begin course work prior to final evaluation of their credentials for admission to a program; or (3) they have been denied admission to a program but choose to take selected courses. Non-degree students may register for courses through the 600 level. Non-degree students who wish to take courses above the 600 level may do so after a transcript evaluation. Requests for an evaluation should be directed to the associate dean. A limit of 12 credits, taken while a non-degree student, may be applied to a degree program with the approval of the program director. Students holding an F1 Visa are not eligible for non-degree status.

### International Applicants

To ensure the timely processing of visa documents, the application and all accompanying documents for international students living abroad must be received no later than April 15 for the fall semester and October 15 for the spring semester. Applicants who are living in the United States should submit their materials no later than July 1 for the fall semester and November 15 for the spring semester. Applicants must also adhere to program-specific deadlines.

The Graduate School requires that applicants who have attended institutions outside the United States submit to the Graduate School an official copy of their educational records plus an assessment of their records from a credential evaluating service center. The assessment should include a course-by-course evaluation of the student's academic records, including the degree received and grade point average (GPA). This assessment usually takes three to four weeks and should be sent directly to the Graduate School.

Among the authorized credential evaluation service centers are:

#### AACRAO

American Association of Collegiate Registrars and Admissions Officers  
Foreign Credential Services  
One Dupont Circle, NW, Suite 520  
Washington, DC 20036  
t. 202-296-3359  
f. 202-822-3940  
[www.aacrao.org](http://www.aacrao.org)

#### ASCISS

American Service Center for  
International Students and Scholars, Inc.  
P.O. Box 250  
Hunt Valley, MD 21030  
t. 410-370-8092  
f. 410-785-6638  
[www.asciss.org](http://www.asciss.org)

#### WES

World Education Services  
P.O. Box 745  
Old Chelsea Station  
New York, NY 10113-0745  
t. 212-966-6311  
f. 212-966-6395  
[www.wes.org](http://www.wes.org)

### TOEFL Test

International students must provide verification of their English competency by taking the Test of English as a Foreign Language (TOEFL). A minimum score of 550 on the

written test or 213 on the computerized test is required for admission to most programs. Doctoral programs require a total score of 600/250. Applied and Industrial Mathematics, Computer Science, Music Performance and Studio Arts will accept a minimum score of 500/173, but a Towson University English assessment test will be required.

TOEFL scores are waived for students who have earned their baccalaureate degree or a higher degree from an accredited U.S. college or university. Information about the TOEFL test may be obtained at [www.toefl.org](http://www.toefl.org) or by writing: TOEFL, Educational Testing Service, Princeton, NJ, 08540, USA.

Towson University is a test site for TOEFL and also administers an institutional TOEFL in the fall and spring. Information can be obtained from Towson's English Language Center at 410-704-2552. Towson's institution code is 0005404. A department code is not needed.

Please visit the Graduate School Web site <http://grad.towson.edu> for additional visa and immigration information.

### **Admission Prior to Receiving Baccalaureate Degree**

Admission to some programs may be granted to seniors in their final semester. Undergraduate work through the first semester of the senior year is evaluated; therefore transcripts submitted must include all grades through that semester. Admission standing is subject to cancellation or change if the admission credentials remain incomplete or do not meet the requirements for admission upon receipt of the final transcript. Final transcripts showing degree conferral must be received by the Graduate School by the end of the student's first semester of enrollment.

### **Graduate Work by Seniors at Towson University**

Seniors at TU may register for a maximum of 6 credits of graduate study if they meet the following criteria: (1) the graduate courses must be in excess of the credits required for the

bachelor's degree; (2) the student submits to the Graduate School Office, in advance of registration, a written request specifying the graduate courses requested; (3) the student maintains a 3.00 or higher cumulative average. Payment for the courses is separate from that of undergraduate courses taken in the same semester and is at the graduate tuition rate. The courses may be transferred later to the student's graduate record.

### **Dual Career Program**

Towson University offers the Dual Career Program for post-baccalaureate students who wish to pursue a second bachelor's degree or an undergraduate certificate in teaching or pre-medicine while enrolled in a master's degree program at TU. Students who are interested in taking graduate and undergraduate studies in different fields at the same time may contact the Office for Non-Traditional Undergraduate Programs, 410-704-2471, for further information.

### **Validation of Undergraduate Degree**

An applicant enrolled for courses is not allowed to register beyond the first semester if the transcript validating the baccalaureate degree is not received in the Graduate School Office by the end of the student's first semester; no refund is granted, and the student's application is removed from the graduate files. A new application and fee must be submitted if the student wishes to take courses for graduate credit at a later time.

## **REGISTRATION AND FEES**

### **Registration**

A schedule of courses for the coming semester and registration information are available online at <http://students.towson.edu>. Only students admitted to a graduate program without conditions may register for 700- and 800-level courses except with special permission of the Graduate School.

### Deferred Registration after Admission

Students admitted to most degree programs may defer registration for initial courses for up to one year, with the consent of the graduate program director. If enrollment in courses does not occur within one year, or the student does not inform the Graduate School Office of another starting date, the applicant's records will be removed from the files and the student must reapply for future enrollment.

### Continuous Enrollment

Students are expected to register for courses on a regular basis. Previous degree candidates who have missed two consecutive semesters in one academic year must be reactivated for enrollment through the Graduate School Office. If two academic years for degree students or five academic years for non-degree students elapse during which a student does not enroll in courses for graduate credit, the students' records are removed from the Graduate School Office files. If the student desires to take graduate courses after this action, he or she must initiate the application process as a new applicant.

### Full-Time and Part-Time Status

A student who registers for 9 graduate credits in the fall, spring or summer semester is considered a full-time student. One who takes fewer credits is designated a part-time student. The maximum load for full-time students is 12 credits.

### Auditing Courses

Students may audit courses that carry graduate credit with the written consent of the instructor. Any graduate student may audit a course through the 600 level. Courses at the 700 level may be audited only by students admitted to a degree program. Audited courses appear on the university record as AU and may not be used to repeat a course for which credit has already been earned. Audited courses may not count as part of the credit hour load or be applied toward the master's degree. The regular tuition rate applies to audited courses.

### Visiting Graduate Students

Students who are candidates for a graduate degree at another college or university may take graduate courses at Towson University. To complete an admission application, the student must present a letter from the graduate dean of the home institution indicating that the student is in good standing and that credit earned at TU is acceptable toward his or her degree.

### Inter-Institutional Enrollment

Students admitted to graduate programs are eligible to take courses at other University System of Maryland schools. Credits earned at a host school will be placed on the student's Towson record with the grade earned. Tuition and fees for any such courses will be paid at Towson. Regulations governing this type of enrollment and the form for registration may be obtained in the Graduate School Office. The form must be signed by the Graduate School after appropriate approval is obtained. Inter-institutional enrollment is not available for the summer session and Minimester.

### Course Numbers

Each department has one or more three- or four-letter codes preceding the three-digit course classification number. The three-digit course number indicates the following level:

100-499	undergraduate courses
500-699	graduate courses available to all post-baccalaureate students. (500-599 are courses that are cross-listed with upper-division undergraduate courses)
700-799	graduate courses available only to fully admitted graduate students
800-899	graduate research and thesis courses

### 500-level Courses for Graduate Credit

A maximum of three courses at the 500-level may be included to meet the requirements for a graduate degree. A course taken for undergraduate credit may not be repeated at the 500 level for graduate credit.



## POLICIES ON ACADEMIC PROGRESS

### Grading System

A - 4 quality points

B - 3 quality points

C - 2 quality points

F - 0 quality points

S or U (satisfactory or unsatisfactory) — used primarily for thesis or field-based courses or others with special recommendation from a program director with approval by the Graduate Studies Committee. The grade of S in graduate courses denotes that work of 3.00 level or higher has been completed. A grade of U is given to students whose work is below 3.00 level quality. A student cannot graduate with a U in his/her program.

FX — assigned when the student registers for a course but does not attend, or fails to withdraw officially from the course by the published last date to drop the course.

I (incomplete) — assigned at the end of the semester because of illness or other reasons beyond the control of the student. Unless the course is completed within 180 days, the grade becomes F. It is the responsibility of the student to make arrangements to complete course requirements for removal of the I.

IP (in progress) — assigned for the thesis continuum. When the thesis is completed, the IP grades are changed to S (satisfactory) or U (unsatisfactory).

W (withdrawn) — assigned when the student withdraws from the course according to policy.

### Academic Standing

Good academic standing in a degree program requires a minimum 3.00 grade point average for all courses taken for graduate credit whether or not they are required for the degree. Students must achieve a grade of B or better in prerequisite courses. Good academic standing is necessary to transfer course work, and to graduate.

Should the degree student's average fall below a 3.00 (including prerequisite courses), a letter of academic warning will be sent. The grade point average must be restored to 3.00 within 9 semester credits completed in a

one-year period from the semester in which the GPA fell below 3.00. A student on academic probation who does not restore the GPA to 3.00 as required will be withdrawn from the degree program. The 3.00 average may be restored by repeating courses or by taking additional courses. With approval by the graduate program director, no more than 2 courses beyond those required in the degree can be used to raise the GPA. All requirements for the program must be completed within the time limitation policy.

### Repeating Courses

Courses for which a grade has been awarded may be repeated only once. The grade of W does not replace a previously awarded grade. When the course is repeated, the student receives the credits for the course (counted once) and the higher of the two grades. Grades for courses taken at other institutions may not be used to replace grades for courses completed at Towson. Courses taken for undergraduate credit may not be repeated for graduate degree credit.

### Withdrawal from a Course

When a student drops a course within the change of schedule period, no grade is recorded. If the course is dropped after the change of schedule period, but within the period to drop with the grade of W, the W grade will be recorded on the permanent record. Students who do not officially drop a course during the established time periods will receive the grade earned in the course (A, B, C, F) as determined by the instructor.

Students with documented medical problems or verified circumstances beyond their control may petition the associate dean of the Graduate School to drop a course after the established deadline and receive a grade of W. Documentation must accompany the petition. It is the responsibility of the student to inform his or her instructors of his or her petition to withdraw for medical reasons. If approved, grades of W will be recorded for all unearned grades (FX). Earned grades (A, B, C, F) will not be changed.

### **Admission to a Second Program after Academic Dismissal**

A student academically dismissed from a degree program is not eligible to re-enter the same program, but may apply to another degree program. No additional admission requests will be accepted from a student academically dismissed from two programs. A student academically dismissed from a degree program because of a low cumulative average may not utilize courses toward a degree that were taken prior to and including the semester in which the average fell below a 3.00.

### **Advising**

At the time of admission to a graduate program, the student is assigned a faculty adviser by the department responsible for the student's program of study. Registration for a newly admitted student begins with a visit to the academic adviser, who will assist the student with information about specific courses and degree requirements, and the development of a program of study. The student should consult with the adviser before registration each semester.

### **Program of Study**

Each degree student must follow a program which is approved by the student's adviser and the program director, and which conforms to Graduate School policy. Courses taken prior to planning the program of study can be included only if approved by the program director. The adviser's and the program director's approval are needed for any revisions. The program of study may include no more than three courses at the 500 level.

### **Change from One Degree Program to a Different Program**

Students may request a change of program at any time, but may not be enrolled in two master's degree programs concurrently. The request should be in writing to the Graduate School Office. The standing granted in the original program does not guarantee similar standing in the new program, which is entered

subject to policies in effect at the time of the change.

Courses taken prior to the transfer may be utilized as part of the degree program if applicable. See "Transfer of Credit" policy for full details. All courses, including those taken in the earlier program and used in the new program, are calculated in the GPA considered for graduation. The time limitation policy for completion of program requirements begins with the earliest course taken in the former program that is applied to the new program.

It is possible to return to the first program if the return is requested in writing within 60 days of the original request to change programs. The student may return to the original program after the 60-day period, subject to admission policies in effect at the time of the application to return.

### **Re-entry to a Degree Program after Lapse of Time Limitation**

For re-admission to the same or another degree program after the time limitation policy for completion of the degree has elapsed, the student's records are evaluated and admission is granted under current Graduate School policy. Previous course work will be reviewed by the program director. Up to 12 credits of courses taken while previously admitted may be applied to the degree if they are still part of the program curriculum within the seven-year limit and are approved by the program director. Any courses not approved must be repeated or replaced with additional courses approved by the program director.

### **Transfer of Credit**

A maximum of up to 50 percent of the credits required for a certificate or degree program may be transferred, subject to approval by the program director. The seven-year limitation cannot be extended for transfer credits within a certificate or master's program, and the 10-year limitation cannot be extended for transfer credits within a terminal or doctoral degree program. Courses taken prior to admission must have been taken at an accredited college

or university, must be applicable to a graduate degree at the offering institution, and cannot be utilized if part of an already conferred bachelor's, master's or terminal/doctoral degree, unless variance is specified by an approved and/or accredited program of study. Where such variance is permitted, terminal or doctoral degree candidates may transfer in courses that have been conferred in a master's degree, at the discretion of the program director. Courses taken as part of a post-baccalaureate certificate (in progress or completed) can be used toward a master's or terminal/doctoral degree if approved by the program director. Transfer courses must have been completed with a grade of B or higher. Pass/Fail or S/U grading is not acceptable.

## Tuition and Fees

Note: Notwithstanding any other provision of this or any other university publication, the university reserves the right to make changes in tuition, fees, and other charges at any time such changes are deemed necessary by the university and the University System of Maryland Board of Regents. Consult the Web site <http://students.towson.edu> for most current fees. Rates for the 2004-2005 academic year are:

Application fee: (nonrefundable) \$40

### Tuition

Undergraduate, per credit/unit

In-state \$212

Out-of-state \$508

Graduate, per credit/unit

In-state \$257

Out-of-state \$538

University fee per credit/unit –  
undergraduate (nonrefundable) \$63

University fee per credit/unit –  
graduate (nonrefundable) \$64

### Technology fee

Less than 10 credits/units \$6/cr (unit)

10 credits or more \$60 flat

### Private music lessons:

(per credit/unit plus tuition)

Major instrument \$100

Non-major instrument \$260

## Fees

The following fees are nonrefundable:

1. Late payment fee
2. Application fee
3. Closed contract fee

The following fees are nonrefundable after the official start of the classes for the semester:

1. Applied fee (private instruction, student teaching, clinical practicum, etc.)
2. Parking permit fee

The following fees are nonrefundable after the official change of schedule period:

1. Mandatory university fees
2. Technology fee

## Changes in Terminology

In fall 2003, Towson University began using Towson Online Services for registration and billing. Under this system, the terms credits (used in this catalog) and units (used online) are interchangeable.

## Center for Applied Information Technology (AIT courses)

AIT rates differ from university rates. For details see the CAIT Web site, [www.towson.edu/cait](http://www.towson.edu/cait).

## Payment of Fees

All checks or money orders should be made payable to Towson University for the exact amount of the charges. The student's name and TU ID number, if known, should appear on all checks submitted to the university. The student's liability is not discharged until his or her balance is satisfied in full. The student's balance can be satisfied through a cash, check or credit card payment, as well as financial aid, a payment plan agreement with Academic Management Service (AMS) or a combination of all options.

AMS's TuitionPay payment plan extends the student a monthly budget plan for meeting education expenses for the academic year and individual regular semesters. Students who choose to use this payment plan may arrange

for a payment plan by contacting AMS at 1-800-635-0120 or [www.amsweb.com](http://www.amsweb.com). The university accepts Discover, MasterCard and VISA credit cards. The university also offers Web credit card payment online at <http://students.towson.edu>. Full payment is required. It is imperative that students adhere to published payment deadlines. A \$75 late fee is assessed to any student who pays after published bill deadlines. Payment of semester bill secures your class schedule for a semester; otherwise, cancellation of your class schedule will occur. You may pay by either returning the remittance portion of your billing statement to the Bursar's Office, Enrollment Services Center, room 336, with payment or verification of funds to cover all charges or through Towson University's Web application (<http://students.towson.edu>. Click on Finances). If your semester bill reflects a credit or zero balance and you choose **NOT** to attend the upcoming semester, you **must** notify Enrollment Services on or before the bill payment due date to have your class schedule cancelled. If you fail to do this, you will be financially responsible for all semester charges. If tuition, fees and related charges are not paid by the established payment date, the student's class schedule will be voided and, if applicable, residence hall space will be forfeited. If a check given in payment of fees, fines or services is returned unpaid by the bank for any reason, a penalty fee of \$50 is charged. Failure to reimburse the university for an uncollectible check with certified monies may result in a student's class schedule being voided.

The financial policy set by the Board of Regents and supported by the legislative auditors of the state of Maryland requires that all previous balances be paid prior to registration for the following academic semester. The university employs a "first in/first out" method when applying payments to accounts. That is, payments are used to satisfy the oldest outstanding charge prior to applying any portion of a payment to current or more recent charges. Should the account of any student be sent to the Central Collection Unit of the State of Maryland because it is deemed delinquent, a \$25 late collection fee will be assessed to the outstanding balance. In addition, a 17 percent collection fee is attached to all student accounts transferred to the Central Collection Unit. Referral to the Central Collection Unit may result in credit bureau reporting. Students with outstanding balances should contact the Bursar's Office. Transcript and diploma requests will not be honored if a student has a financial obligation to the university.

The Bursar's Office is open Monday through Friday. The Customer Service Center's business hours are 8:30 a.m. to 4:30 p.m. and the Payment Center business hours are 8:30 a.m. to 4 p.m. Extended business hours are offered during bill payment periods. The Bursar's Office can be contacted at 410-704-2100, toll free at 1-888-5BURSAR or through the Bursar's Web page at [www.towson.edu/bursar/](http://www.towson.edu/bursar/).

## FINANCIAL AID

Graduate students may receive loans, scholarships and work while attending the university. Funds for financial aid and scholarship programs come from the U.S. Department of Education, the state of Maryland and Towson University.

Scholarships generally use merit or academic achievement as the main criterion, without considering the financial need of the applicant. Some scholarships use academic major as a primary criterion.

Other programs help students pay the difference between the cost of education and the amount they can contribute:

### Cost of Education

- Expected Family Contribution (EFC)
- Other Resources (state/private scholarships, etc.)

### Need for Title IV funds

The cost of education includes direct costs like tuition and fees, as well as indirect costs such as personal and transportation expenses.

The U.S. Department of Education calculates the Expected Family Contribution from the information that the student provides on the *Free Application for Federal Student Aid (FAFSA)*. The EFC formula considers income, assets, family size and number of family members in college.

The Office of Financial Aid is located in the Enrollment Services Center, room 339. The telephone number is 410-704-4236; the fax number is 410-704-2584; and the Web site is <http://onestop.towson.edu/finaid>.

## Student Eligibility

Factors that determine eligibility for Federal Title IV and university campus-based aid include:

- financial need (except for unsubsidized loans)
- degree candidacy or formal admission as a regular student making satisfactory academic progress toward a degree or certificate
- U.S. citizen or eligible non-citizen status
- valid Social Security number

- certification that the applicant is not in default on a student loan and does not owe a repayment of a Federal Title IV Grant
- registration for the selective service

## Deadlines and Application Procedures

All students must reapply for Federal Title IV and some Maryland State Scholarship programs annually, and should do so each year, as soon as possible after January 1. Students can apply for aid electronically at the U.S. Department of Education's [www.fafsa.ed.gov](http://www.fafsa.ed.gov) Web site, or they can request a paper FAFSA from the federal processor by calling 1-800-4FED-AID.

Students should complete the FAFSA by January 31 to meet the Towson University priority deadline of March 1. All students must list Towson University (code #002099) in Step 6 of the *FAFSA*. This allows the federal processor to transmit the processed applications electronically to the Towson University Financial Aid Office.

The Financial Aid Office offers campus-based and direct federal aid first to students whose applications are completed and received from the U.S. Department of Education by the March 1 deadline. Applications received after the March 1 deadline are processed on a rolling basis; however late applicants should not expect consideration for limited campus-based funds.

## Campus-Based Financial Aid

The Financial Aid Office receives a limited amount of money each year for the campus-based programs from the U.S. Department of Education. Only the earliest aid applicants who demonstrate the greatest need and meet all eligibility requirements (see Student Eligibility) may receive aid from these need-based programs. The Financial Aid Office processes applications in the order of EFC, starting with the lowest EFC and continuing through the highest EFC. Students whose applications have the lowest EFC's may receive aid from the campus-based program requiring exceptional need.

### ***Federal Perkins Loan***

The university offers loans from this Federal Title IV program first to students who have exceptional financial need. Graduate students may receive up to \$6,000 per year. The aggregate limit is \$40,000, including all loans borrowed for undergraduate study.

This loan has an annual interest rate of 5 percent, making this the lowest cost educational loan. Interest does not begin to accrue, and no payment of principal is due, until nine months after the borrower leaves school or drops below enrollment for at least 6 credit hours. Payments depend on the total amount borrowed, but will never be less than \$40 per month, plus interest.

### ***Federal Work-Study***

This Federal Title IV program allows students to work and earn money for educational expenses. The university pays aid from this program through paychecks every two weeks. The eligibility does not offset direct university charges such as tuition.

Students can find work opportunities on campus or in approved off-campus organizations and agencies. The university encourages students to consider off-campus jobs in community service organizations.

Towson University's Career Center maintains a list of available Federal Work-Study positions. Work-Study students can find information on job openings at [www.towson.edu/careercenter](http://www.towson.edu/careercenter), by visiting the Career Center, or by looking at the job boards on the lower level of the University Union.

### ***Direct Federal Aid***

Unlike the campus-based programs, the university has no limit on the total number of eligible students who can receive aid from a direct aid program. However, federal regulations limit the amount any student can receive from a direct aid program.

### ***Federal Direct Student Loan Program***

The application requirements for these long-term loans are the same as for other Federal Title IV programs. Borrowers must carry at least 6 credit hours per semester.

Depending on the amount of need, an aid offer may include an interest-subsidized loan or an unsubsidized loan. Some students receive both subsidized and unsubsidized loans.

The chief difference between a subsidized loan and an unsubsidized loan is the point at which interest begins to accrue. No interest accrues on a subsidized loan until the end of a six-month grace period, which begins when the borrower graduates, withdraws, or drops below enrollment for at least 6 credit hours. Interest on an unsubsidized loan accrues during enrollment, and throughout the grace period. The interest rate for Direct Loans is variable, and capped at 8.25 percent.

All borrowers pay interest while in repayment. The repayment period begins at the end of the grace period.

All borrowers pay a loan origination fee of 3 percent, which is deducted from the loan proceeds. The U.S. Department of Education may offer an up-front interest rebate of up to 1.5 percent of the loan amount borrowed. (To keep the up-front interest rebate, borrowers must make their first 12 required monthly payments on time).

Direct Loans have the following annual limits for graduate students: \$8,500 in subsidized loan, and \$10,500 in unsubsidized loan.

The aggregate loan limit is \$138,500, of which no more than \$65,500 may be subsidized. This limit includes all loans made for undergraduate study.

### ***Loan Counseling Requirements for Borrowers***

New Federal Perkins Loan or Federal Direct student borrowers at Towson University must complete entrance loan counseling. Borrowers who graduate or leave school must complete exit loan counseling sessions. These sessions provide borrowers with information on their rights and responsibilities.

New borrowers will find entrance and exit loan counseling for Direct Loans, as well as entrance counseling for the Federal Perkins Loan Program at <http://onestop.towson.edu/finaid>. The university's Office of Financial Services provides exit loan counseling for Perkins Loan borrowers.



## Financial Aid Disbursements

Generally, students receive one half of academic year financial aid funds each semester. The university will credit aid (except Federal Work-Study) toward semester charges for tuition and fees and other direct university charges.

Students should take the following steps to ensure that funds are available in time to pay semester charges:

- meet the March 1 financial aid application deadline
- complete the admissions requirements early
- register for classes at the earliest opportunity

Whenever the amount of semester aid exceeds a student's charges to the university, the student has a credit balance and will receive a rebate check to use for books and day-to-day indirect educational expenses.

The Bursar's Office can disburse rebate checks as early as 10 days before the start of the semester. A student can request the Bursar's Office to convert a portion of the credit balance for retail points on the student's Towson University onecard for the purchase of books, or for use at any campus food location.

A student who receives a late aid offer may not receive a check until at least three weeks after the creation of the credit balance. A student with a revised aid offer may also experience a delay in receiving a rebate check.

## Financial Aid for Minimester

Students cannot receive Federal Title IV financial aid for Minimester.

## Financial Aid for Summer Sessions

A supplemental application is required for summer aid and is available from the Financial Aid Office at the time course schedules become available. Summer aid is usually limited to loans from the Federal Direct Loan Program.

## Financial Aid Advising

Students can schedule appointments to speak with Towson University financial aid

advisers in person or by telephone. To schedule an appointment, call 410-704-4236.

## Refund Policy

When a student completely withdraws from Towson University while receiving Federal Title IV student aid, the Financial Aid Office must determine what portion of the student's semester aid (not including Federal Work-Study funds) will revert to the federal programs. The Financial Aid Office uses a statutory federal refund formula required by the U.S. Department of Education to determine what portion of aid paid to university charges has been "earned" and what portion must be considered "unearned."

The percentage of assistance earned is equal to the percentage of the semester completed as of the day the student withdraws. (If the withdrawal occurs after the 60 percent point, the percentage of aid earned is 100 percent.) The amount of aid not earned by the student is calculated by determining the complement of the percentage of assistance the student earned. That percentage is then applied to the total amount of federal aid assistance disbursed for the semester.

If the student has received more assistance than the amount earned, the university or the student (or both) must return the unearned funds to the Federal Title IV programs.

Towson University returns the lesser of the unearned amount of Title IV assistance; or the institutional charges incurred for the semester, multiplied by the unearned percentage of Title IV grant and loan assistance. (Institutional charges are limited to tuition, fees, and room and board, if the student paid these charges to the university.)

The student returns unearned Title IV assistance minus the amount the university returns. The U.S. Department of Education does not allow discretion on the part of the university for non-institutional costs. In most cases, when a student receives Title IV assistance greater than the amount of institutional charges and completely withdraws from the university, the student will have to return some of those federal funds.

## SCHOLARSHIPS

### State Scholarships and Grants

The state of Maryland offers scholarships and grants based on financial need, academic major, merit, or a combination of these factors. Legal residents of Maryland apply using the *FAFSA* or the *Renewal FAFSA*. The deadline is March 1.

Some state programs, such as teaching scholarships, require separate applications and have different deadlines. For more information about all state scholarships and grants, students can visit the Maryland Higher Education Commission's Web site at [www.mhec.state.md.us](http://www.mhec.state.md.us).

### Private Scholarships

Various businesses, foundations and civic organizations offer scholarships. Students should check directly with groups in their local communities. The [www.fastWEB.com](http://www.fastWEB.com) Web site is another source for private scholarship information.

Students who receive scholarships from private organizations outside the university (not including Maryland State scholarships) should contact the Bursar's Office to arrange for payment of scholarship funds. Scholarship proceeds are disbursed in accordance with procedures and policies set by the private scholarship donors and Towson University. Students may defer partial payment of university charges before receiving scholarship proceeds by forwarding a copy of the scholarship award letter to the Bursar's Office. Any outstanding balance created when a student or donor fails to provide the university with adequate, timely information will become a financial obligation of the student.

### Scholarship Seeker

Towson University offers a limited number of need- and non-need-based scholarships and grants to graduate students. The Scholarship Seeker allows students to search for Towson University and state of Maryland scholarships and grants to fit their individual qualifications. Students can view lists of potential scholarships, and link to detailed information about

scholarship requirements and application procedures. The Scholarship Seeker is part of the Financial Aid Office Web site at <http://onestop.towson.edu/finaid>.

### Scholarship Over-Award Policy

Towson University will not award or disburse a combined total of federal, state, institutional and/or private scholarships that exceeds a student's cost of education unless all of the funding comes from a private external source. The cost of education is a standardized budget including tuition, fees, room, board, and allowances for indirect costs such as transportation and personal expenses. Whenever a student's total aid package exceeds the cost of education, the Financial Aid Office will adjust or reduce aid offered by the university.

## OTHER FINANCIAL RESOURCES

### Student Employment

Various departments on campus hire students. Students will find information on current job openings at [www.towson.edu/careercenter](http://www.towson.edu/careercenter) and on job boards located on the second floor of the University Union.

The Career Center also helps students find part-time, off-campus jobs in the Baltimore metropolitan area. For additional information, call 410-704-2730 or visit the Career Center.

### Veterans Benefits

The Veterans Office is located in the Enrollment Services Center, room 233. The phone number is 410-704-3094. The Veterans Office provides coordination between veteran/dependent students and the regional office of the Department of Veterans Affairs. The coordinator establishes procedures and prepares forms and correspondence for eligible students to receive educational benefits. Additionally, the officer monitors class attendance and evaluates academic progress to ensure that those receiving benefits maintain satisfactory progress. This officer also supervises the employment of VA work/study students.

Students taking courses at other institutions concurrently with courses at Towson University

may be certified for both institutions by the TU coordinator.

Students may visit the office daily from 8:30 a.m. to 4 p.m. but may wish to call for an appointment.

The normal time for the Regional Office of the Veterans Administration to process an enrollment certification is six weeks. Certification is not automatic. The proper VA forms must be completed each semester.

NOTE: Students cannot be certified for courses until they register.

### *Withdrawals*

When students decrease credit load during the course of the semester, they must notify the TU Veterans Office. Failure to do so could result in termination of benefits and a financial debt to the U.S. Department of Veterans Affairs.

### *FX Grades*

Students who receive an FX at the end of a term should contact the university office immediately.

### *Change of Program*

Veterans may change their academic program once without VA approval. For more than one change of program, however, veterans are required to undergo counseling by the Veterans Administration. A change of program with the VA is required whenever veterans make a curriculum change in which any of the courses for which VA benefits were previously received do not transfer into the new program or whenever students declare a new major or matriculate at a different institution.

### *Independent Study*

Payment for independent study courses will generally be made on a tuition and fees basis only. Monthly rates may be paid for such courses, provided that more than half of the total number of credits for that semester are in courses requiring class attendance. Check with the office to determine eligibility to pay for independent study courses.

### *Advance Payment*

Advance payment is the allowance for the first two months of an enrollment period. All tuition and fees are due according to regular university deadlines and cannot be deferred pending receipt of advance payment. Students may apply for advance pay only if they will be enrolling at the university on at least a half-time basis and meet established deadlines. There must be one full calendar month break between semesters to apply for the advance to qualify for advance payment.

Students may request advance pay for the regular academic semesters in writing on the Declaration of Intent Form. The student must be registered one month before the semester commences to qualify for advance payment.

### *Approved Program*

The VA will pay veterans only for the courses listed in the *Catalog* that are required for a degree and for programs that have been approved for study by the Veterans Administration. If students take courses in addition to those listed for their approved program, they will not be entitled to receive VA benefits for them.

### **Alternative Loans**

Students may borrow alternative loans from private lenders outside the university. These non-federal loans can supplement other sources of student financial aid. Students and parents can find links to alternative loan lenders at the [www.towson.edu/finaid](http://www.towson.edu/finaid) Web site of the Financial Aid Office.

### **Assistantships**

The Graduate School offers a limited number of graduate assistantships each year to qualified admitted or enrolled students. The stipends for these assistantships vary according to the number of hours worked and the length of employment (from two to 12 months). Full-time assistants (20 hours per week) receive a 12-credit tuition waiver per semester plus a stipend of \$2,000 each semester. Half-time assistants (10 hours per week) receive a 6-credit tuition waiver per

semester plus \$1,000 each semester. There are also a limited number of graduate teaching and research assistantships in certain programs, as well as external assistantships.

Most departments make their selections from the pool of applicants in late spring. Applicants are encouraged to submit their application in early spring or several months in advance of the beginning of the semester for which they are applying. Interested applicants may obtain more information and an application by calling 410-704-2077 or on the Web at <http://grad.towson.edu>.

### **Fellowships**

The College of Graduate Education and Research is committed to supporting students enrolled in doctoral and other terminal degree programs at Towson University. The purpose of the Towson University Graduate Student Fellowship program is to advance the goals of increased excellence and diversity of graduate students. Awards are made to students on the basis of academic merit and/or depth of professional experience. Detailed information may be obtained by calling the Graduate School Office, 410-704-2077, or by e-mailing [grads@towson.edu](mailto:grads@towson.edu).

### **Alumni Association Graduate Fellowship Awards**

The Alumni Association awards several scholarships each year to TU students who are full- or part-time graduate or postgraduate students and are active leaders in their community. The Alumni Association recognizes and rewards students who demonstrate the highest levels of intellectual achievement and the potential to be active supporters of the university and the larger community. Each award shall consist of a certificate and a \$1,000 to \$2,000 scholarship that will be deposited directly into the student's university account for tuition, books and/or living expenses. Applications may be obtained from the Towson University Office of Alumni Relations, 1-800-887-8152, or [alumni@towson.edu](mailto:alumni@towson.edu), and must be postmarked no later than June 15.

## **GRADUATION REQUIREMENTS**

### **Eligibility for Graduation**

Students must successfully pass all program prerequisites, as well as all required and elective degree courses with a minimum average of 3.00 in all graduate work taken at Towson University as well as a minimum average of 3.00 in all courses included in the program of study with no more than two C's. Students must also pass the master's degree written examination, if required by the particular program, and any additional oral and written examinations. All degree requirements including resolution of incomplete grades and the submission of final copy of the thesis (which must be delivered to the Graduate School) must be completed by the last day of classes of the semester in which the student is applying for graduation. The application for graduation must be filed by the published date. (See Academic Calendar.)

### **Application for Graduation**

The request for graduation review for a degree or certificate is submitted to the Graduate School Office. The deadline for submission of the application is published in the Academic Calendar (p. 1). If the application is submitted late, graduation is postponed until the next graduation date. All graduation requirements, including resolution of incomplete grades and acceptance of the completed thesis (if a thesis is undertaken), must be completed by the last day of the semester in which the student is applying for graduation. If the student does not complete requirements for graduation, the application must be resubmitted during the semester in which graduation is intended.

### **Thesis Procedure**

Students intending to write a thesis should obtain the manual *Guidelines for Preparing the Master's Degree Thesis* from their program director or from the Graduate School Web site at [www.towson.edu/grad/gthesis.html](http://www.towson.edu/grad/gthesis.html). Students registering for thesis credit must have a special permit from the program director.

## **Thesis/Project Continuum Registration**

If a student does not complete the thesis during the regular thesis course registration, he/she must register for Thesis Continuum every semester until the work is finished, submitted, and approved.

If a student does not complete the project work during the regular project course registration, he/she must register for Project Continuum the following semester to complete the work. Normally, students will only be allowed one semester of Project Continuum.

If a student misses a semester and returns, it will be necessary to register for thesis/project credits after the fact for the missed semester(s). The only exception would be for students with special reasons to temporarily withdraw from the university, with approvals from the program director and the Dean of the Graduate College.

## **Time Limitation for Completion of Degree Requirements**

All requirements for a certificate or master's degree must be completed within a seven-year period. All requirements for terminal or doctoral degrees must be completed within a 10-year period.

## **500-Level Courses**

A maximum of three 500-level courses may be included toward a master's degree.

## **Grades of C**

A maximum of two courses of C grades are allowed in the program of study for graduation.

## **Courses Taken as a Non-Degree Student**

A limit of 12 credits may be used in a program if taken by non-degree students who later apply for degree status.

## **Special Format Courses**

In all degree programs, a limit of 12 credits is placed on workshops, independent study, travel and study, directed reading, or other special format courses.

## **Golden I.D. Program: Senior Citizens**

Retired Maryland residents, 60 years of age or older, are eligible for the Golden I.D. senior citizen tuition waiver program. Golden I.D. students may enroll in most graduate courses for a maximum of two courses for the spring, summer and fall semesters, and pay only the necessary fees. Golden I.D. students may take courses for audit or credit on a space-available basis (special format courses excluded.) To apply for the Golden I.D. card, please call 410-704-2471 or stop by the Office of Non-Traditional Undergraduate Programs in room 223 of the Enrollment Services Center.

## **OTHER ACADEMIC POLICIES**

### **Towson University Policies**

#### *Privacy Rights of Parents and Students*

Towson University is in compliance with Section 513 (protection of the rights and privacy of parents and students) and Section 514 (protection of pupil rights) of Title V - Education Administration of the Education Amendments of 1974. University policies on this issue are spelled out in detail in Appendix B.

#### *Nondiscrimination in Education and Employment*

Towson University is in compliance with federal and state regulations regarding nondiscrimination on the basis of race, color, national origin, religion, sex, sexual orientation, age, disability or other prohibited reason. For further information, contact the Towson University Office of Diversity and Equal Opportunity, 410-704-2361, <http://www.towson.edu/aa>.

#### *Maintenance and Disposition of Records*

Students who do not register within one year of admission must submit new admission credentials and application data if they subsequently take courses.

All student records, including academic records from other institutions, are part of the official file, and are retained subject to stated policies. They cannot be returned or duplicated for any purpose. Students should obtain their

own copies of official credentials for advisory purposes and other personal uses.

### *Confidentiality of Records*

In keeping with the Family Educational Rights and Privacy Act of 1974, Towson University respects the confidential relationship between the university and its students by preserving, to the maximum extent possible, the privacy of all records relating to its students. Records are kept only on matters relevant to the academic admission process and to the student's progress toward a degree. The records will not be disclosed except upon student's written request or with his or her written consent, under legal compulsion, or in carefully circumscribed instances based on clearly defined policies of Towson University (see Appendix B).

### *Substance Abuse Policy*

Each student is expected to read and abide by the policies and regulations of Towson University concerning drug and alcohol abuse. The substance abuse policy is found in Appendix D.

## **Graduate School Policies**

### *Student Responsibility*

It is the responsibility of the student to become knowledgeable of, and to observe, all university policies, regulations and procedures. In no case will a waiver of requirements or an exception be granted because a student pleads ignorance of policy or regulation or asserts that he/she was not informed of a specific requirement by an adviser or other university authority. The student should become especially familiar with: (1) the regulations in this catalog, (2) the section presenting requirements for the degree sought, and (3) the offerings and requirements of the student's major department.

Policy for graduate study, as stated in this catalog, is in effect for all students admitted to a program for the 2004-2005 academic year, and is that under which the student operates through the term of his or her study toward completion of degree requirements (subject to the disclaimer in the next paragraph).

While the provisions of this catalog will ordinarily be applied as stated, the catalog and the information contained herein do not constitute a contract. Towson University reserves the right to change any provision listed in this catalog, including, but not limited to, academic requirements for graduation, without actual notice to individual students. Every effort will be made to keep students advised of any such changes. Information on changes will be available from advisers and in the dean's office. It is especially important to note that it is the individual student's responsibility to keep apprised of current graduation requirements for his/her particular degree program.



*Academic Integrity*

Students are expected to maintain a high standard of academic integrity. Inappropriate classroom conduct, cheating and plagiarism may result in disciplinary action by the Graduate Studies Committee.

Instructors are responsible for maintaining the academic integrity of courses, and will initially handle problems of classroom conduct, cheating and plagiarism in a discussion with the student. Unauthorized assistance in preparing materials submitted as original work by the student constitutes a violation of academic integrity and results in action being taken. The instructor may lower the student's grade or give a failing grade for the course. If the instructor decides that further action is warranted, he or she will notify the student that a formal charge will be made to the Graduate Studies Committee. A written report of the incident will be filed with the committee.

The committee will review the facts of the case and make a decision regarding the status of the student. The committee will either absolve the student of the violation or impose a penalty. The penalty may be, but is not limited to, the following: (1) agreement that the lowered course grade is sufficient disciplinary action; (2) mandatory suspension from taking courses for graduate credit for a designated period of time; or (3) dismissal from the Graduate School.

*Academic Standards, Appeals, Hearings and Grievances*

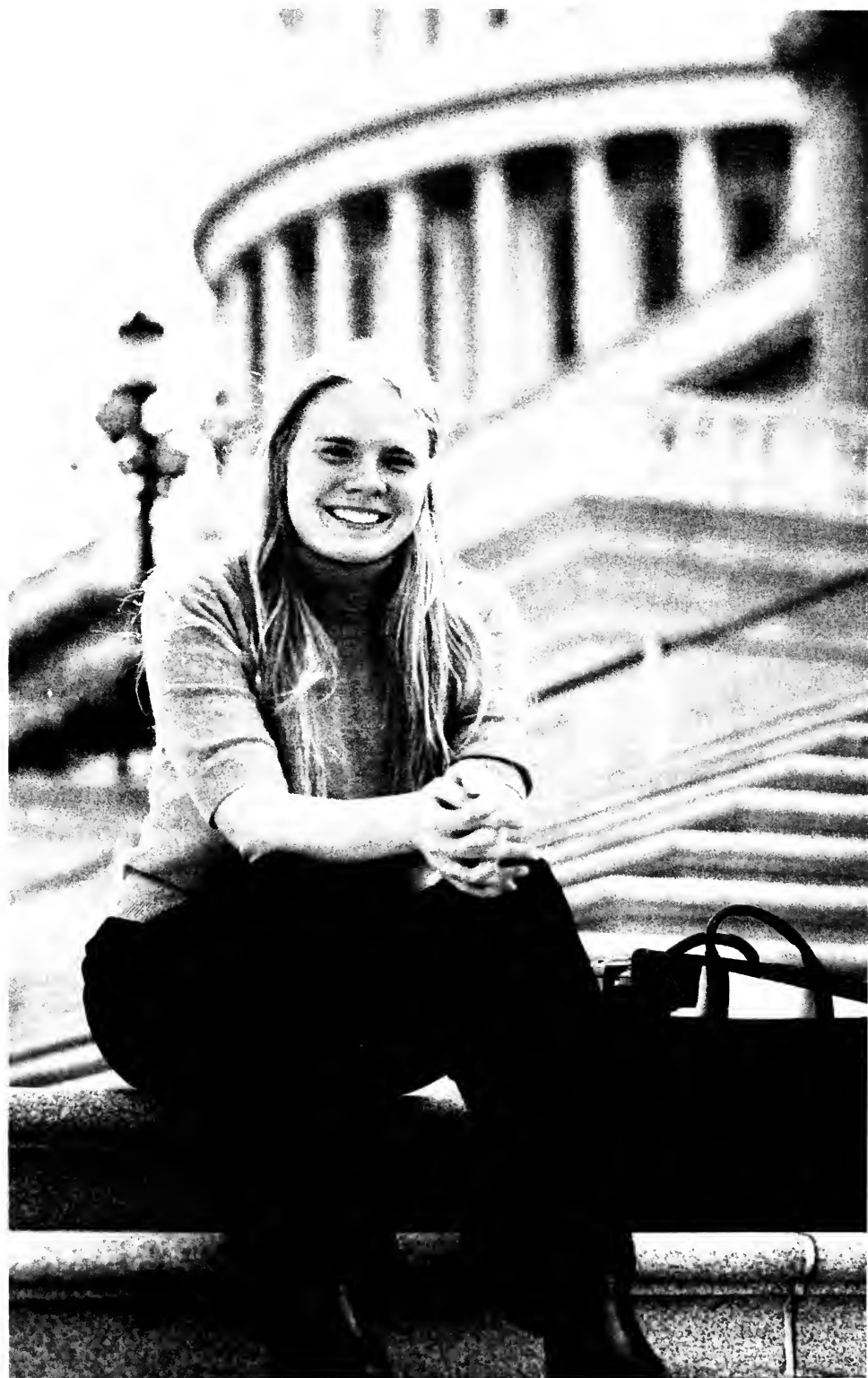
Matters of graduate academic standards are the responsibility of the Graduate Studies Committee. Appeals related to academic matters should be made to this committee by writing in care of the Graduate School dean.

Graduate School policy on procedures for appeals, hearings and grievances is found in Appendix E of this catalog.

In all cases involving disciplinary action, or other charges, procedures of due process are followed. Additional information may be found under the headings of "Graduate Studies Committee" and "Academic Integrity."

*Exceptions to Academic Policies, Regulations or Requirements*

Exceptions to academic policies, regulations or requirements, as stated in this catalog or elsewhere, are rarely made, and then only for truly extenuating circumstances. A student who believes an exception is justified may petition the Graduate School. The request must state the specific exception being requested and the reasons for the request. For degree students, the program director must countersign the request, indicating his or her recommendation. In cases that involve faculty in addition to the program director, the coordinator forwards the request to the appropriate faculty member(s) for additional written recommendation. The signed request is then forwarded by the program director to the Graduate School. Non-degree students must petition the Graduate School directly.



## THE COLLEGE OF BUSINESS AND ECONOMICS

### VISION

CBE's vision is to be widely recognized as a distinctive college of applied business studies.

### MISSION

CBE's mission is to provide:

- a strong undergraduate business education for high achieving students... selected graduate programs based upon specific CBE strengths and needs
- a good balance of theory, application and personal development activities that create a challenging environment of integrated learning
- each student with the opportunity to meet the required "Profile of a CBE Graduate" through strong faculty who consistently demonstrate quality teaching, advising and important scholarly contributions in their fields of expertise
- a nurturing culture of high expectations that properly prepares each student for life beyond college
- a strong outreach program to create dynamic partnerships beyond the university for economic and societal development, academic linkages that enhance the teaching/learning environment throughout our college, and CBE's important inclusion in the fabric of the community.

Shohreh Kaynama, Dean

### COLLEGE OFFICE

Stephens Hall, Room 218

410-704-3343

Fax: 410-704-3664

[www.towson.edu/cbe](http://www.towson.edu/cbe)

### Master's Degree Programs

Accounting and Business Advisory Services

### Post-baccalaureate Certificate Program

Management and Leadership Development

*(See Interdisciplinary Programs section)*

## ACCOUNTING & BUSINESS ADVISORY SERVICES

Degree: Master of Science

Program Director: Martin Freedman

410-704-4143

mfreedman@towson.edu

### Program Description

The Master of Science in Accounting & Business Advisory Services at Towson University is a joint program with University of Baltimore. This program is designed to meet two important educational objectives. First, when combined with a bachelor's degree in accounting, the program allows students to earn the additional credits necessary to meet the 150-hour requirement to sit for the Uniform Certified Public Accountant (CPA) exam in Maryland and many other states. The revised CPA exam (as of November 2003) includes a section called Business Environment and Concepts which is composed of questions related to finance (22% - 28%) and information technology (17% - 23%), as well as other topics currently covered by an undergraduate accounting degree. Students planning to take the revised CPA exam will be best served by a program of study that emphasizes the same subject matter as the exam. Second, by incorporating courses in the related disciplines of financial management and information technology, the program complements the technical skills acquired in an undergraduate accounting education. Graduates of the M.S. in Accounting and Business Advisory Services program will have the flexibility needed to accelerate their public accounting careers or pursue careers in other areas such as management accounting, internal auditing, accounting for governmental or other non-profit entities and management consulting.

### Admission Requirements

The minimum requirements for admission to the joint graduate program in Accounting and Business Advisory Services at Towson University and the University of Baltimore are a baccalaureate degree from an accredited college or university and a 3.00 minimum under-

graduate grade point average. (Students not meeting the GPA standard will be considered on an individual basis for a conditional admission.) Admission to the program will be based on undergraduate academic performance and scores on the Graduate Management Admission Test (GMAT) or the Graduate Record Examination (GRE). Both schools will use the same admission standards.

### Prerequisite Courses

The following list of undergraduate accounting and non-accounting classes are required to be completed before enrolling in graduate courses required as part of the MS in Accounting and Business Advisory Services program.

### Accounting Courses

ACCT 201/202	Principles of Accounting (6)
ACCT 300	Accounting Information Systems (3)
ACCT 301/302/303	Intermediate Accounting (6-9)
ACCT 341	Cost Accounting (3)
ACCT 361	Tax Accounting I (3)
ACCT 401	Auditing I (3)

### Non-Accounting Courses

COMM 131	Oral Communications (3)
ECON 201/202	Principles of Economics (6)
ECON 205	Statistics for Business and Economics I (3) or
MATH 231	Statistics (3)
ENGL 317	Written Communications (3)
FIN 331	Principles of Finance (3)
LEGL 226	US Business Law (3)
MNGT 361	Principles of Management (3)
MNGT 482	Business Ethics and Society (3) or
PHIL 371	Business Ethics (3)

## DEGREE REQUIREMENTS

Completion of a minimum of 30 semester hours beyond the undergraduate degree of which a minimum of 18 semester hours should be in 600-level courses or above designed primarily for graduate students. (This is an AACSB requirement.) Students may take courses at either institution, but must take a minimum of 12 hours sponsored by each institution out of the total 30-hour program.

### Required Courses

#### Accounting (12 credits)

Towson and UB

- |          |  |
|----------|--|
| ACCT 630 | Contemporary Topics in Financial Reporting (3) |
| ACCT 720 | Design of Managerial Cost Control Systems (3)  |
| ACCT 740 | Advanced Topics in Assurance Services (3)      |
| ACCT 752 | Advanced Topics in Accounting Systems (3)      |

#### Financial Management (6 credits)

Towson and UB

- |         |                                       |
|---------|---------------------------------------|
| FIN 640 | Intermediate Financial Management (3) |
| FIN 715 | Investment Analysis (3)               |

#### Information Technology (6 credits)

#### Applied Information Technology (Towson)

- |         |                                 |
|---------|---------------------------------|
| AIT 610 | Systems Development Process (3) |
| AIT 632 | Database Management Systems (3) |

OR

#### Management Information Systems (UB)

- |          |                                 |
|----------|---------------------------------|
| INSS 651 | Database Management Systems (3) |
| INSS 671 | Systems Analysis Design (3)     |

### Electives (6 credits)

#### Accounting

Towson and UB

- |          |   |
|----------|---|
| ACCT 655 | Tax Policy (3)                              |
| ACCT 680 | Taxation of Entitles (3)                    |
| ACCT 770 | Seminar in Current Topics in Accounting (3) |
| ACCT 799 | Individual Research (3)                     |

#### Finance (UB)

- |         |  |
|---------|--|
| FIN 720 | International Financial Management (3)     |
| FIN 745 | Derivative Instruments (3)                 |
| FIN 750 | Real Estate Investment (3)                 |
| FIN 780 | Corporate Restructuring (3)                |
| FIN 797 | Special Topics in Financial Management (3) |

#### Information Technology (Towson)

- |         |   |
|---------|---|
| AIT 600 | Information Technology Infrastructure (3)               |
| AIT 612 | Information Systems Vulnerability and Risk Analysis (3) |
| AIT 614 | Network Security (3)                                    |

#### Management Information Systems (UB)

- |          |                                     |
|----------|-------------------------------------|
| INSS 641 | Information Resource Management (3) |
| INSS 650 | Telecommunications (3)              |
| INSS 765 | Global Electronic Commerce (3)      |

Other graduate courses in areas such as applied information technology, economics, management, marketing, etc. may also be chosen after consultation with both graduate directors depending on the student's career goals and professional needs.

### CPA Examination

A student must have also completed the specific courses required to sit for the Certified Public Accountant examination in Maryland, which would normally be done during the student's undergraduate studies (see Prerequisite Course section). A student who has not completed these courses prior to admission to the M.S. in Accountancy program will develop a plan to satisfy these requirements in consultation with the graduate director. This can be expected to add to the total number of credit hours needed to earn the degree.



## THE COLLEGE OF EDUCATION

As the first teacher-training institution in Maryland, Towson University has a distinguished history in the preparation of classroom teachers, educational specialists and school leaders. Programs of study in the College of Education include baccalaureate degrees with teacher certification in early childhood education, elementary education and special education. The College of Education offers a program leading to teacher certification in secondary education for those enrolled in baccalaureate degree programs in other colleges of the university.

Programs at the graduate level lead to master's degrees with initial or advanced certification in teaching, special education, school administration, reading specialist and media specialist. Master's degree programs in early childhood education, elementary education and secondary education are aligned with the certification standards of the National Board for Professional Teaching. Doctoral as well as master's degrees are offered in the area of instructional technology. Programs of study within the College of Education are constantly assessed and reorganized to provide students at all levels with a professional education based on current research, models of best practice, and the needs of the larger professional community.

Faculty members in the College of Education actively participate in the academic community as teachers, scholars and advisers. All are dedicated to the mission of the college as it applies to all educators in all programs: to inspire, educate and prepare facilitators of active learning for diverse and inclusive communities of learners in environments that are technologically advanced.

Raymond P. Lorion, Dean  
Thomas Proffitt, Associate Dean

COLLEGE OFFICE  
Hawkins Hall, Room 301  
410-704-2570  
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www.towson.edu/coe

### Doctoral Degree Program

Instructional Technology

### Certificates of Advanced Study (post-master's)

Organizational Change

*(See Interdisciplinary Programs section)*

Reading Education

### Master's Degree Programs

Early Childhood Education

Elementary Education

Instructional Technology

Reading

Secondary Education

Special Education

Teaching

### Certification

Administrator I

*(See Interdisciplinary Programs section)*

- Human Resource Development, Educational Leadership Track

- Post-Master's Certification for

Administrator I

Reading Specialist

**MARYLAND WRITING PROJECT****OFFICE**

Hawkins Hall 403C, 410-704-3593

Director: Barbara Bass, 410-704-4573

Co-director: Linda De La Ysla, 410-704-4094

The Maryland Writing Project (MWP), a site of the National Writing Project, is housed in Towson University's College of Education. MWP is supported by the colleges of Education and Liberal Arts. Established in Baltimore in 1981, the MWP is a teacher-driven professional development organization for teachers across the content areas in grades pre-K through university. Its mission is to identify, train and support excellent teachers so that they can share with others their knowledge and experience in teaching writing and in using writing as a learning tool. Teachers participate in an invitational Summer Institute to become teacher-consultants. They research, develop and share best writing practices in order to affect change in their classrooms, schools and school systems.

The MWP offers both undergraduate and graduate courses. Maryland Writing Project teacher-consultants serve as instructors for EDUC 301 Writing and Communication Skills for Teachers. They also teach SCED 399 Differentiated Student Teaching, which is offered during the summer in conjunction with a camp for young writers called the Student Writers' Workshop. At the graduate level, MWP-trained teacher-consultants teach SCED 605, the 6-credit Summer Teacher Institute; EDUC 734, the Teacher Inquiry Institute; EDUC 667 Writing as Thinking; and EDUC 661 Responding to and Evaluating Writing. They also teach special topics courses at the graduate level throughout the year.

Finally, the MWP offers Maryland State Department of Education-approved, in-service professional development workshops in school systems across the state. The courses range in scope from daylong to yearlong classes.

**EARLY CHILDHOOD EDUCATION**

Degree: Master of Education

Program Director: Edyth J. Wheeler

410-704-2460

ejwheeler@towson.edu

The M.Ed. in Early Childhood Education is an advanced degree program designed to prepare the degree candidate for a future professional role, to increase competence in a current career role, or to provide a step toward further study in the field of early childhood education. It is not an initial teaching certification or licensure program, but an opportunity for increased professional development at the graduate level. The M.Ed. in Early Childhood Education is recommended for practitioners in a wide range of programs for children from birth through age eight in a variety of community settings. Their roles may include administration, supervision and mentoring in early childhood programs; pre-elementary or primary grade teaching; family/community support; early intervention; resource and referral; program licensing; infants and toddlers specialist; as well as many others. Guiding principles include an interdisciplinary perspective, collaboration, mentoring and advocacy, with a foundation of the most current knowledge base in early childhood and best practice for all young children and families.

The 33-credit program consists of seven required courses and four elective courses supporting a designated area of focus, designed to provide each student with a deeper understanding of the knowledge base in the field, while supporting individual areas of professional specialization and academic interest. The faculty in the Department of Early Childhood Education has developed specific courses to support students in their professional development and in their future contributions to the field of early childhood education through their chosen career paths. The M.Ed. in Early Childhood Education is aligned with NAEYC Standards for Early Childhood Professional Preparation in Advanced Programs.



## Admission Requirements

- A baccalaureate degree from an accredited college or university.
- A minimum undergraduate GPA of 3.00 is required for full admission and 2.75 for conditional admission to the program. All GPA calculations are based on the last 60 credits of undergraduate and post-baccalaureate study.

*One or more of the following:*

- Teacher certification in early childhood education.
- or*
- Teacher certification in elementary education plus 6 credits in early childhood education.

*or*

- A minimum of three years of experience as a teacher in an early childhood program serving young children from birth to age 5.

*or*

- Undergraduate courses in the following areas:
  - educational psychology or psychology of learning
  - child growth and development
  - curriculum and methods in early childhood education

NOTE: Prerequisite listed courses above do not fulfill elective requirements for the degree.

- A current resume submitted with the application for admission as well as all post-secondary transcripts. Send to the program director.

NOTE: The M.Ed. in Early Childhood Education is an advanced program and does not lead to initial teacher certification in early childhood education. Individuals interested in post-baccalaureate initial certification should contact the early childhood education graduate director for further information about certificate options within the M.Ed..

## Degree Requirements

The Master of Education in Early Childhood Education requires a minimum of 33 credits, including the following:

- Completion of required prerequisite courses.
- Course work for the degree.

## Required Courses (21 credits)

- ECED 611 Teacher as Researcher (3)
- ECED 609 Growth and Development of Young Children (3)
- ECED 619 Assessment, Observation and Evaluation in Early Childhood Education (3)
- ECED 607 Learner Diversity and Inclusion in Early Childhood Education (3)
- ECED 665 Curriculum Theory and Development (3)
- ECED 610 Learning Environments: Curriculum and Technology (3)
- ECED 773 Seminar in Early Childhood Education (3)

## Electives (12 credits)

These courses will support the candidates area of focus or specialization as indicated on initial Goals Statement and are to be selected from departmental elective courses or up to six credits from another department with permission. With the consent of the program director, up to six semester hours of departmental elective courses may be taken at the 500-level.

## Grade Requirements

All students must complete ECED 773 with the grade A or B (the course may be repeated) or successfully complete ECED 898 Thesis.

## Course Sequence

The first 6 credits of the graduate program are ECED 611 Teacher as Researcher and ECED 609 Growth and Development of Young Children. These two courses must be completed before other courses are taken. The final, or capstone, course is ECED 773 Seminar in Early Childhood Education. In ECED 773, students are provided an opportunity to develop a creative and interdisciplinary statement of their professional identity, as they articulate their views on why they care about children and why they do what they do. All other course work must be completed prior to taking this course.

## Thesis Option

As an alternative to ECED 773, students may elect the ECED 898 Thesis in Early Child-

hood Education. This option is available for students who may wish to pursue doctoral studies at a later date or who have identified a strong commitment to a specific topic of inquiry they wish to pursue in great depth. Students who elect the Thesis Option will take the 6-credit ECED 898 Thesis in place of the 3-credit ECED 773 Seminar and 3 elective credits.

### **Additional Degree Requirements**

**Goals Statement:** At the beginning of the program, students will select an Area of Focus to guide their professional growth in their graduate study and will submit a Goals Statement. This document will serve as a plan so that students may achieve their individual professional and academic objectives in their Area of Focus.

**Graduate Professional Portfolio:** Each student will present a professional portfolio as an exit requirement to the program. Along with ECED 773 (or ECED 898), the portfolio will provide a capstone experience. It will demonstrate integrated graduate level learning and reflect the student's growth as a professional and leader in the chosen area of specialization in the field of early childhood education. An on-going collection of graduate work, it will serve as a synthesis of learning throughout the degree coursework and reflect NAEYC Standards for Advanced Professional Preparation.

### **Areas of Focus for Early Childhood Graduate Students:**

#### **Recommended for M.Ed. Candidates**

**Early Childhood Accomplished Teacher:** Advanced professional study to develop candidates as master teachers and mentors in their professional settings and may prepare candidates for NBPTS certification.

**Early Childhood Administrator/Program Director:** Advanced professional study to prepare candidates to become, or to increase their effectiveness as, administrators, supervisors or directors in schools, centers and non-traditional programs for young children and families.

**Early Childhood Family Specialist:** Advanced professional study to prepare candi-

dates to specialize in work with the families of young children in a variety of roles and settings. This Area of Focus will also meet requirements for a post-baccalaureate Family Studies Certificate.

### **Certificate Options Within the M.Ed.**

**M.Ed. Plus Certification:** The M.Ed. Plus provides a certification option for Early Childhood graduate students who already have a background in the field of early childhood education in addition to increased professional development at the graduate level. The M.Ed. in Early Childhood Education is recommended for graduate students with undergraduate degrees or significant experience in Early Childhood Education, Child Development or Child and Family Studies or who are practicing professionals working with young children and families. The M.Ed. Plus consists of the seven required courses and four elective courses in the M.Ed. that are geared toward certification as well as additional credits in specific areas to meet certification requirements. These additional credits will be determined based on prior experience and course work and may include courses in the teaching of reading and internships. The M.Ed. Plus may require more than the 33 credits for the basic M.Ed.

**Family Studies Certificate:** Family/home collaboration is a vital aspect of Early Childhood professional practice. One of the Areas of Focus in the M.Ed. in Early Childhood Education at Towson is the Early Childhood Family Specialist. Graduate students selecting this Area of Focus will complete the requirements for the Post-Baccalaureate Certificate in Family Studies within their master's degree program. These students must also meet with the Director of the Post-Baccalaureate Certificate Program in Family Studies for advising on course requirements for the certificate program. Students will take the following courses as three of their electives in the M.Ed. in order to obtain the Family Studies Certificate:

FMST 601	Applied Family Relationships
FMST 610	Family Professional Collaboration
FMST 620	Project in Family Focused Program Development

For more information about the Family Studies Post-Baccalaureate Certificate, see the description in the Interdisciplinary Programs section of the catalog.

**National Board for Professional Teaching Standards Preparation:** One of the Areas of Focus in the M.Ed. in Early Childhood Education is Early Childhood Accomplished Teacher. NAEYC Standards addressed in the M.Ed. required courses are aligned with the National Board for Professional Teaching Standards. Graduate students who are teachers in public school settings may further focus their elective courses to work toward preparation of the portfolio and documentation required for this certification and recognition as master teachers.

### **Certificate of Advanced Study in Early Childhood Education (Pending formal approval)**

The Certificate of Advanced Study (C.A.S.) in Early Childhood Education is a post-masters program that is in clear alignment with the mission and vision of the University and the College of Education and is responsive to the needs of early childhood professionals. This 30-credit post-master's certificate program is designed to address the need for increasing professionalism and leadership for those who work in variety of settings with young children from birth through age 8 and their families. The C.A.S. will prepare graduate students to assume greater roles as advocates and policy specialists, administrators, family specialists, master teachers, researchers and teacher educators, and may lead to later doctoral study. Guiding principles for the C.A.S., as for the M.Ed., include an interdisciplinary perspective, collaboration, mentoring, and advocacy, with a foundation of the most current knowledge base in Early Childhood and best practice for all young children and families, consistent with national professional standards and positions.

The C.A.S. in Early Childhood Education is a 30-credit program aligned with the National Association for the Education of Young Children (NAEYC) Standards for Advanced Professional Preparation in Early Childhood Education and structured to reflect advanced

areas of specialization for professionals in the field. Individualized as well as interdisciplinary, the program is based on an 18-credit Core and a 12-credit Area of Focus to be selected by the candidate. The Core includes six credits of internship aligned with the Area of Focus

### **Admission Requirements**

- Completed Graduate Application
- A master's degree in Early Childhood Education or related field from a nationally accredited institution
- Official transcripts for undergraduate and graduate course work
- An overall GPA of 3.75 or above for graduate work
- A letter of application describing professional goals for advanced graduate study and proposed Area of Focus
- Current resume or curriculum vita
- Three letters of recommendation that describe the candidate's professional experience and academic work

### **C.A.S. Program Completion Requirements**

#### **Required Core Courses (18 credits)**

ECED 694	Internship (6)
ECED 7XX	Advanced Early Childhood Development and Critical Perspectives (3)
ECED 750	Program Development and Evaluation (3)
ECED 7XX	Leadership and Advocacy in Early Childhood Education (3)
ECED 7XX	Social Justice and Ethical Issues (3)

Note: Candidates for the Administrator I Certificate will take 3 credits of ECED 694 Internship in Early Childhood Education and 3 credits of ELED 797 Internship in Educational Leadership.

Note: New ECED course numbers have not been published at this time.

## Elective Courses in Areas of Focus (12 credits)

Candidates will determine an Area of Focus as they begin the program and, with approval of the program director or advisor, will select four elective courses to support that Area.

### Areas of Focus and Recommended Electives for C.A.S. Candidates:

1. Early Childhood Advocate/Policy Specialist (will prepare candidates to act as advocates for children, families and the profession, specializing in a particular issue or area of need or developing more generalized advocacy and public policy skills). Candidates will work with program director or advisor to identify specific professional goals and select electives to support those goals. Suggested elective choices may include::

HRD elective or related field: Organizational and environmental change

POSC elective or related field: Government and legislative processes

WMST, SOCI, ECON elective or other issue-specific elective

EDUC 603 School Law

ECED 694 Internship (an additional 3 credits for full-time public policy work on Capitol Hill, in Annapolis, or with professional organization advocacy groups.)

2. Early Childhood Teacher Educator/Researcher (will prepare candidates for doctoral study at Towson or elsewhere, for teaching in institutions of higher education or for research). Candidates will work with program director or advisor to identify specific professional goals and select electives to support those goals. Suggested elective categories may include:

Research methods (EDUC 715 Statistics, new EDUC courses in Qualitative Methods, Advanced Qualitative or Statistical Methods.)

ISTC elective Course in Instructional Technology

ECED elective Course to support specialization for teacher educators

ECED 695 Independent Study: Research and Writing for Publication

Note: New EDUC course numbers have not been published at this time.

3. Early Childhood Family Specialist (will prepare candidates for further work with families of young children and will also meet requirements for a Family Studies Certificate). Candidates will work with the program director or advisor as well as the program director for Family Studies to determine electives in this Area of Focus:

FMST 601 Applied Family Relationships

FMST 610 Family Professional Collaboration

FMST 620 Project in Family Focused Program Development

ECED or FMST elective or related field

4. Early Childhood Accomplished Teacher (will support candidates in preparation for NBPTS certification.) Candidates will choose four electives as needed to supplement prior coursework in order to align with NBPTS. ECED 694 Internship may focus on Mentorship or portfolio building. Candidate who did not receive the M.Ed. Towson may include one or more of the required courses for the M.Ed. Possible elective choices:

ECED 604 Math/Science in the Early Childhood Education Program:  
ECED 608 Teaching and Learning Social Studies in Early Childhood Education

ECED 612 Conflict Resolution and Management in Programs for Young Children

ECED 623 The Art of Reading and Writing in Primary Grades & Kindergarten or

ECED 680 Celebrating Young Children: Curriculum and Best Practices in Early Childhood Education  
elective in Reading

REEDxxx elective Instructional Technology

ISTCxxx

5. Early Childhood Administrator: Public School Emphasis (building on M.Ed. coursework, will prepare candidates in public school settings to meet requirement for the Administrator I Certificate). There are six required courses for Administrator I Certificate. In addition to ECED 665 Curriculum Theory and Development (required in the M.Ed.) and ELED 797 Internship in Educational Leadership, electives in this Area of Focus will be:

EDUC 603	School Law
ELED 781	Seminar in Supervision
HRD 643	Administration of the Schools
HRD 644	Team Building

## ELEMENTARY EDUCATION

Degree: Master of Education  
 Program Director: Linda Emerick  
 410-704-4251  
 lemerick@towson.edu

The Master of Education in Elementary Education provides opportunities for graduate students in education to meet the challenges of a dynamic profession.

The program of study helps the student in the following areas:

- Developing advanced competencies in curriculum development and instructional design.
- Developing an understanding of the diverse nature of learners and society.
- Assuming leadership roles in the profession.
- Using technology to enhance learning.
- Understanding and using appropriate assessment and evaluation.
- Engaging in scholarly activities.
- Thinking and reflecting critically about the educational process and professional practice.

The goals and objectives of the degree program are based on the core propositions endorsed by the National Board for Professional Teaching Standards. The areas addressed by the standards are reflected in the required and elective courses.

## Admission Requirements

- An overall minimum undergraduate GPA of 3.00 for full admission to the program, and

a 2.75 GPA for conditional admission, based on the last 60 credits of total undergraduate and post-baccalaureate study.

- Maryland teaching certification, eligibility for teaching certification, or permission of the program director.

NOTE: This master's degree program is not accompanied by automatic state certification. Non-certified applicants should contact the director or their adviser prior to enrolling in course work.

## Degree Requirements

- Completion of required prerequisite courses.
- All students must complete ELED 775/ SCED 781 Integrated Professional Practice Seminar, with a grade of A or B (the course may be repeated only once) or successfully complete ELED 897 Thesis.
- Completion of required courses and electives as specified below.

NOTE: Graduate students enrolled in the Master of Education in Elementary Education program may transfer a maximum of 9 semester credits of graduate-level course work required for their degree program. Additional credits may be accepted in special circumstances, with approval of the program director.

## Program of Study A: Master of Education with Thesis (33 credits)

### Required Courses (18 credits)

EDUC 560	Teaching in a Multicultural/ Multiethnic Society (3)
EDUC 605	Research and Information Technology (3)
ELED 647	Advanced Processes of Teaching and Learning (3)
ELED 665	Curriculum Theory and Development (3)
ELED 897	Master's Thesis in Elementary Education (6) (Students must meet with advisor one semester prior to enrolling in this course)

**Electives (15 credits)**

A minimum of three elective courses (9 credits or more) that are taken must be designated as elementary education (ELED). Electives may be selected from one, two, or more areas of focus, based on the student's professional goals. Areas of focus include curriculum and instruction, leadership, technology, diversity and learning, assessment and evaluation, and content areas. Students may select electives from other departments in consultation with their adviser. A maximum of 6 credits may be taken at the 500 level.

**Program of Study B: Master of Education with Seminar (33 credits)****Required Courses (15 credits)**

EDUC 560	Teaching in a Multicultural/ Multiethnic Society (3)
EDUC 605	Research and Information Technology (3)
ELED 647	Advanced Processes of Teaching and Learning (3)
ELED 665	Curriculum Theory and Development (3)
ELED 775	Integrated Professional Practice Seminar (3) (Students must meet with advisor one semester prior to enrolling in this course)

**Electives (18 credits)**

A minimum of three elective courses (9 credits or more) that are taken must be designated as elementary education (ELED). Electives may be selected from one, two, or more areas of focus, based on the student's professional goals. Areas of focus include curriculum and instruction, leadership, technology, diversity and learning, assessment and evaluation, and content areas. Students may select electives from other departments in consultation with their adviser. A maximum of 6 credits may be taken at the 500 level.

**INSTRUCTIONAL TECHNOLOGY (Ed.D.)**

Degree: Doctor of Education

Program Directors:

Paul Jones

410-704-2568

pjones@towson.edu

David Wizer

410-704-6268

wizer@towson.edu

The Doctor of Education (Ed.D.) in Instructional Technology will admit new students throughout the year. The Ed.D. is based upon the understanding of education settings (schools and beyond) as learning communities immersed in a world of technology within which: 1) students are nurtured and challenged to meet the high expectations established for them; 2) community leaders are engaged in these communities to support them; and 3) teachers, supervisors and administrators must take the lead in integrating technology into these communities through continuous professional development. Thus, the program focuses on the development of instructional technology expertise to meet the present and future needs of technology integration in instruction across the educational spectrum.

The objectives of the Ed.D. in Instructional Technology are to:

- Develop knowledge and skills in the theory, foundation and philosophy to employ instructional technology in a wide range of educational practice;
- Provide advanced skills and abilities for teachers and trainers who are innovative, change agents for integrating technology into education and human resource development organizations;
- Acquire advanced skills in research, assessments and evaluation strategies in the applications of technology in education and training environments;
- Provide experiences for employing technology effectively in pre-K through 16 learning environments to promote reform and enhance learning;

- Develop knowledge, skills and abilities for teaching via online and digital environments to create and ensure high quality and effective learning communities;
- Create skilled and highly capable professionals who are able to lead educational organizations to make effective decisions about the appropriate uses of technology in learning and teaching.

## Admission Requirements

- Successful completion of a master's degree in instructional technology or related field from a regionally accredited institution.
- An overall GPA of 3.00 or above for undergraduate degree work is required. Graduate work should be at a GPA level of 3.75, though GPAs as low as 3.4 can be considered.
- For international students a TOEFL score of 600 or above is required.
- Letter of application describing professional goals in seeking the degree and area(s) of interests/specializations.
- GRE test must be taken, and applicants must submit the three general scores in analytic, quantitative and verbal areas.
- Letters of recommendation from two professionals, including one from a professional familiar with the academic work of the candidate.
- Academic writing sample.
- Interview may be required upon the request of the Admissions Committee of the Instructional Technology faculty.
- Submission of digital portfolio elements that demonstrate the integration of technology into the applicant's field of expertise (such as instruction or training).

## Degree Requirements

The doctoral program requires 63 graduate credits beyond the master's degree. Course work in the program includes 15 credits in the instructional technology core, 9 credits in research methodology, 18 credits of instructional technology specialization elective coursework, 9 credits of doctoral seminar and 12 credits of dissertation research.

After completing all course work and prior to beginning the dissertation, students must pass a comprehensive written exam and/or submit a portfolio based upon the core domain and one specialization area. Upon passing/approval, students will be admitted to the dissertation sequence.

## Core Courses (15 credits)

ISTC 700	Assessment in Instructional Technology (3)
ISTC 707	Learning Environments in a Digital Age (3)
ISTC 709	Legal and Ethical Issues (3)
ISTC 711	Innovation, Change and Organizational Structures (3)
ISTC 741	Foundations of Research in Instructional Technology (3)

## Research Methodology Courses (9 credits)

EDUC 715	Educational Statistics (3)
EDUC xxx	Qualitative Methods (3)
EDUC xxx	Advanced Qualitative Methods (3)
EDUC 790	Advanced Measurements and Statistics in Education (3)

## Seminars and Internship Courses (9 credits)

ISTC xxx	Seminar in Instructional Technology (6)
ISTC 797	Instructional Technology Internship (3)

## Specialization/Elective Courses (18 credits)

*Examples of suitable electives include:*

ISTC 689	Distance Education in Theory and Practice (3)
ISTC 717	Theory and Design of Computer-based Instruction (3)
ISTC xxx	Philosophical Foundations of Educational Technology (3)
ISTC 767	Advanced Theory and Instructional Design (3)
ISTC xxx	Advanced Web-based Instruction (3)

- ISTC 718 Critical Perspectives in Instructional Technology (3)  
 ISTC xxx Integrating Digital Resources into the Curriculum (3)

Selection of elective courses must be made with the advice and approval of the student's doctoral adviser. All elective credits may be in instructional technology. With prior permission, 12 credits may be taken outside the College of Education. All elective course work must be at the 600-level or higher.

### INSTRUCTIONAL TECHNOLOGY (M.S.)

Degree: Master of Science

Program Director: David Wizer

410-704-6268

wizer@towson.edu

The master's degree program in Instructional Technology in the College of Education is an applied professional program that helps to educate leaders in three technology fields: training and development, school library media, and educational computing and media.

The Instructional Technology graduate program is intended for both current professionals in the fields of media, design, computing, education and libraries as well as those who are seeking advanced degrees and an upgrade in their skills and knowledge base related to technology. The program is hands-on and practical with a considerable focus of most courses being inventive and authentic learning projects.

Students select one of three options. The first, Instructional Design and Development, offers a flexible program of study designed to develop competencies in instructional design and media-related competencies for those who wish to work in training or instructional settings in business, industry, government, the military, or medical education. The second, School Library Media, meets the Maryland State Department of Education requirements for the Media Generalist Certification and is designed for students who wish to serve as directors of school library centers. The third, Educational Technology, is designed for those

who wish to integrate technology into classroom teaching or to coordinate the planning and integration of educational technologies at the school, district or state level.

The program is most often completed by students on a part-time basis, although full-time study is encouraged. A majority of the graduate students in the Instructional Technology program are full-time working professionals who take classes in the late afternoon or early evening. Professionals seeking to advance or change careers comprise a substantial portion of the student population in the Instructional Technology program. These include students who intend to become school library media specialists, industry training specialists, and leaders in educational computing and technology.

### Admission Requirements

- A minimum undergraduate grade point average of 3.00 for full admission, and 2.75 for conditional admission. All GPA calculations for admission are based upon the last 60 credits of undergraduate and post-baccalaureate study.
- Technological literacy including the ability to use application programs is a necessary background requirement for Concentration I, II and Track III.

### Concentration I—Instructional Design and Development

*No prerequisite course requirements.*

### Concentration II – School Library Media

*Completion of the following courses or their equivalents:*

EDUC 401	Foundations and History of Education
ISTC 301/501	Integrating Instructional Technology
PSYC 201	Learning Theory, Student Development, and Strategies for Identification of Student with Diverse Learning Needs
SPED 301	Inclusion of Special Needs Student Populations



**Track III—Educational Technology**

Maryland State Department of Education certification as a classroom teacher, administrator or specialist.

**Degree Requirements**

- Completion of Concentration I, II or Track III courses.

**Concentration I—Instructional Design and Development**

**Plan A: Master of Science with Thesis**  
(minimum 36 credits)

**Required Courses (30 credits)**

ISTC 541	Foundations of Instructional Technology (3)
ISTC 633	Instructional Video (3)
ISTC 655	Media Design and Production I (3)
ISTC 663	Applied Psychology of Learning (3)
ISTC 667	Instructional Development (3)
ISTC 685	Research in Instructional Technology (3)
ISTC 687	Computer-based Instruction (3)
ISTC 689	Theory and Design of Computer-based Instruction (3)
ISTC 897	Master's Thesis in Instructional Technology (6)

**Electives (6 credits)**

Selection of elective courses must be made with the advice and approval of a program adviser. The elective credits may be in instructional technology. Three credits may be outside the department.

At least 27 credits must be at the 600-700 levels.

**Plan B: Master of Science without Thesis**  
(minimum 36 credits)

**Required Courses**

*(except for thesis the required courses are identical to Plan A)*

**Electives (12 credits)**

Selection of elective courses must be made with the advice and approval of a program adviser. All elective credits may be in instructional technology. With prior permission based upon a written rationale, up to 9 credits may be outside the department.

At least 27 credits must be at the 600-700 levels.

**Concentration II—School Library Media**

**Plan A: Master of Science with Thesis**  
(minimum 36 credits)

**Required Courses (36 credits)****Level 1**

ISTC 615	Collection Development (3)
ISTC 653	The Organization of Knowledge (3)
ISTC 667	Instructional Design and Development (3)

**Level 2**

EDUC 717	Children's Literature and Materials for Teaching Reading (3)
ISTC 541	Foundations of Instructional Technology (3)
ISTC 651	Information Literacy and Access (3)
ISTC 702	Educational Leadership and Technology (3)
SCED 518	Young Adult Literature (3)

**Level 3**

ISTC 601	Library Media Administration (3)
ISTC 789	Practicum and Portfolio in Library Media (3)
ISTC 897	Master's Thesis in Instructional Technology (6)

**Plan B: Master of Science without Thesis**  
(minimum 36 credits)

**Required Courses**

(Identical to plan A, except for the deletion of ISTC 897 Master's Thesis in Instructional Technology (6) and addition of:

ISTC 685      Research in Instructional  
                         Technology (3)

**Electives (0-3 credits)**

At least 27 credits of courses must be at the 600-700 levels.

**Concentration III—Educational Technology**

**Required Courses (27 credits)**

EDUC 605      Research and Information  
                         Technology (3)  
ISTC 541      Foundations of Instructional  
                         Technology (3)  
  
ISTC 655      Media Design and  
                         Production (3)  
ISTC 667      Instructional Development (3)  
ISTC 685      Research in Instructional  
                         Technology (3)  
ISTC 687      Computer-based Instruction (3)  
ISTC 702      Educational Leadership and  
                         Technology (3)  
ISTC 717      Distance Education in Theory  
                         and Practice (3)  
ISTC 797      Graduate Internship in  
                         Instructional Technology (3)

**Electives (9 credits)**

ISTC 553      Instructional Photography (3)  
ISTC 605      Web-based Instruction (3)  
ISTC 633      Instructional Video (3)  
ISTC 663      Applied Psychology of  
                         Learning (3)  
ISTC 689      Theory and Design of Computer-  
                         Based Instruction (3)  
ISTC 897      Master's Thesis in Instructional  
                         Technology (6)

**READING**

Degree: Master of Education

Program Director: Barbara Laster

410-704-2556

blaster@towson.edu

The Master of Education in Reading program is designed to prepare reading specialists, primarily for K-12 education, but also for community colleges, industry, adult education programs, commercial education centers and private practice. The 33-credit program is highly structured with eight required courses and three electives. It is developmental in design. Students grow in both their knowledge and application as they proceed through the program.

The Graduate Reading Program at Towson University does not subscribe to a particular position on reading. It closely reflects the broad, comprehensive knowledge and skills outlined in the 1998 Standards for Reading Professionals developed by the International Reading Association.

The goal of the Master of Education in Reading program is to prepare reading specialists who have a dynamic understanding of the reading process and who have a wide array of resources for enhancing literacy for all learners.

The program is designed to prepare the degree candidate to:

- Provide specialized literacy instruction and assessment, in cooperation with other professionals, to students at all levels.
- Provide literacy services to students in compensatory or special education programs.
- Communicate with parents and the community about literacy issues.
- Provide instructional guidance to paraprofessionals.
- Conduct in-service workshops on literacy topics.
- Read and interpret literacy research.
- Continue to grow professionally by reading professional journals and by participating in reading conferences and workshops.

The Master of Education in Reading program is grounded in five philosophical beliefs:

- Literacy learning involves not only reading, but also writing, listening, speaking and viewing.
- Literacy instruction must be research-based and therefore requires reading specialists to be competent in interpreting and applying research findings.
- Literacy instruction must be responsive to the individual differences among learners.
- Literacy instruction must be inclusive and celebrate the diversity of learners.
- Literacy instruction and assessment must be closely connected so that instruction is developed, monitored and modified using multiple sources of assessment data.

The Master of Education in Reading program can be completed on a full-time or part-time basis. Most courses are offered in the early evening (e.g. 4:20-6:50 p.m.) one night per week. All eight required courses are offered in both fall and spring semesters and many are offered during the summer.

### Admission Requirements

Candidates for admission to the Master of Education in Reading program must meet the criteria for admission to all graduate programs at the university: a 3.00 GPA for the last 60 credits of undergraduate and post-baccalaureate study. Students can be admitted conditionally to the Master of Education in Reading program with a 2.75 GPA. Those admitted conditionally must receive an A or B in the first three REED courses they take in the program. Candidates who completed their bachelor's degree more than 10 years ago with less than a 3.00 can be admitted to the program by documenting five years of successful education-related work experience.

Candidates in the M.Ed. in Reading program are not required to have or be eligible for a teaching certificate. This is to allow individuals interested in careers that do not require a state teaching certification (e.g., community college developmental reading) to pursue the degree. It is, however, important to understand that completing the M.Ed. in Reading does not carry automatic state certification. Maryland

State Certification for Reading Specialist has three requirements:

- Eligibility for teacher certification in early childhood, elementary, secondary or special education.
- Three years of classroom teaching experience.
- M.Ed. in Reading from an approved program (e.g. Towson University's) or a master's equivalency.

### Required Courses (24 credits)

REED 601	Reading Theory and Practice (3)
REED 609	Reading Assessment (3)
REED 621	Reading Disabilities (3)
*REED 626	Clinic Internship in Reading (3)
REED 663	Strategic Use of Materials in a Balanced Literacy Classroom (3)
REED 665	Teaching Reading and Writing in the Content Areas (3)
*REED 726	Advanced Internship in Reading (3)
REED 729	Seminar in Reading (3)

\*There are two required internships in the program, REED 626 Clinic Internship in Reading, and REED 726 Advanced Internship in Reading. They are both 3-credit experiences that require 45 contact hours with clients, parents and fellow clinicians each semester. In addition to working with one client, the students enrolled in the advanced internship are responsible for providing parent and paraprofessional workshops on a variety of topics as well as serving as coaches for the paraprofessionals. If a student withdraws from REED 626 or REED 726 without consulting with the instructor, she/he must petition the Director of the Program in order to re-enroll in the course.

### Electives (9 credits)

There is considerable flexibility in elective course selection in order to meet the unique program needs of individual candidates. Suggested courses include (but are not limited to) the following:

REED 628	Guided Reading (3)
REED 632	Improving Literacy of Adolescents and Adults with Language-Learning Disabilities (3)

## 44 DEGREE AND CERTIFICATE PROGRAMS

REED 660	Integrating Technology in Literacy Instruction (3)
REED 670	Special Topics in Reading Education (3-6)
REED 695	Individualized Study in Reading Education (3-6)
REED 710	Multicultural Literature for Children and Adolescents (3)
EDUC 605	Research and Information Technology (3)
EDUC 717	Children's Literature and Other Materials (3)
ISTC 501	Utilization of Instructional Media (3)
PSYC 611	Developmental Psychology (3)
ECED 607	Learner Diversity and Inclusion in Early Childhood Education (3)
ECED 609	Growth and Development of Young Children (3)
ELED 557	English for the Non-English Speaking Child (3)
ELED 601	Critical and Creative Thinking (3)
EDUC 560	Teaching in a Multicultural/Multiethnic Society (3)
SPED 513	Assistive Technology for Students with Disabilities (3)
SPED 541	Curriculum/Methods for Instruction for Students with Disabilities (3)
SPED 637	Mainstreaming for the Classroom Teacher (3)
SCED 518	Young Adult Literature (3)
SCED 605	Theory, Research and Practice in Teaching Composition (6) [Maryland Writing Project Summer Institute]
SCED 611	Inclusion/Integration Strategies for Special Needs Adolescents and Adults (3)
SCED 625	Teaching in the Middle School (3)

### Program Exit Requirements

Students must earn the grade of A or B in REED 726 and REED 729. Each course may be repeated once, if necessary. Students not earning an A or B in each course are dismissed from the program.

Throughout the program, students collect artifacts for their Program Portfolio. At the conclusion of the REED 729 course, students are required to present their program portfolio to new students in the program.

### READING EDUCATION (C.A.S.) CERTIFICATE OF ADVANCED STUDY

Program Director: Barbara Laster  
410-704-2556

blaster@towson.edu  
Graduate Reading Programs  
Information Line:  
410-704-5775

The Certificate of Advanced Study (C.A.S.) in Reading Education is a post-master's program that reflects the university and college missions and helps develop advanced knowledge and leadership skills necessary for meeting the challenges of redesigning and restructuring education across the P-16 continuum.

Students may complete four of six required courses to fulfill the Administrator I Certification requirements by completing the C.A.S. in Reading. Furthermore, many of the courses in this program can be counted toward the Ed.D. in Instructional Technology. The C.A.S. in Reading is an outcomes-based program designed to meet the standards for Reading Coordinators outlined by the International Reading Association (IRA). Such reading professionals "...administer literacy, bilingual, compensatory and ESL programs in schools or other institutional settings." They direct the organization, management and assessment of school, district or institutional literacy programs. The IRA requires that academic preparation for reading coordinators includes course work in professional development, grant writing, program administration and evaluation, and school law, with additional course work in reading. The program is a 30-credit-hour program.

## Admission Requirements

- Completed Graduate Application.
- A master's degree in Reading Education or related field from a nationally accredited institution.
- Three letters of professional reference, one of which must be job-related.
- Submission and approval of a professional portfolio, including:
  1. student assessment report
  2. professional writing sample
  3. professional development materials

## Required Courses (24 credits)

REED 751	Language, Literacy and Culture (3)
REED 752	Literacy Theory and Research (3)
REED 660	Integrating Technology in Literacy Instruction (3)
REED 740	Grant Writing for Education (3)
REED 670	Professional Development in Reading Education (3)
EDUC 740	Data-based Decision-Making for Curriculum and Instruction (3)
EDUC 603	School Law (3)
ELED 716/	
SCED 643	Administration of the Schools (3)

## Electives (6 credits)

There is considerable flexibility in elective course selection in order to meet the needs of individual candidates. Suggested courses include the following:

REED 710	Multicultural Literature for Children and Adolescents (3)
EDUC 605	Research and Information Technology (3)
EDUC 761	Research in Education (3)
EDUC 611	Supervision of Student Teaching (3)
ELED 665	Curriculum Theory and Development (3)
ELED 781/	
SCED 683	Seminar in Supervision (3)
ISTC 605	Web-Based Instruction in Education (3)

ISTC 663	Applied Psychology of Learning (3)
ISTC 667	Instructional Development (3)
ISTC 687	Computer-Based Instruction (3)
ISTC 700	Assessment in Instructional Technology (3)
ISTC 702	Educational Leadership and Technology (3)

## FAMILY STUDIES CERTIFICATE

Students interested in enhancing their knowledge of family-related issues might consider pursuing the Post-Baccalaureate Certificate in Family Studies as they complete their master's degree. For more information, see the description of this graduate program in the Interdisciplinary Programs section of the catalog.

## SECONDARY EDUCATION

Degree: Master of Education

Program Director: Cindy Hartzler-Miller

410-704-4957

chartzlermiller@towson.edu

The Master of Education in Secondary Education aims to provide middle and high school teachers with current research on teaching and learning, new techniques and procedures for instruction and evaluation, as well as an opportunity for advanced study in their content fields.

This program is intended for middle school and high school teachers seeking advanced professional certification from the Maryland State Department of Education.

Students may select courses among the following five fields to meet their specific needs: technology, research related to teaching/learning, administration, special education, or advanced work in their teaching (content) area.

Completion of the master's program will enable the graduates to renew their teaching certification as middle or high school teachers in their content fields.

The required core of six courses provides an update in technology, curriculum, current trends and issues in education, teaching/learning strategies, diversity/differentiation and research methodology.

A thesis is optional. Students may elect to design and conduct a research project based on an educational problem approved by the university's Institutional Review Board instead of choosing the thesis.

The degree can be completed through part-time study. The majority of secondary Master of Education candidates are teaching, employed full-time in area middle and high schools. Courses are offered in the late afternoons, evenings, weekends and summers.

### Admission Requirements

- Certification by the Maryland State Department of Education
- A 3.00 GPA for full admission; 2.75 GPA for conditional admission. All GPA calculations for admission are based upon the last 60 credits of undergraduate and post-baccalaureate study.

NOTE: Applicants certified in another area (e.g., elementary education) but not certified as a secondary teacher should be aware that completion of the master's degree is not accompanied by automatic state certification. These applicants should contact their adviser prior to enrolling in any course work.

### Degree Requirements

Non-Thesis Plan  
(minimum 33 credits)

#### Core Courses (18 credits)

- |          |  |
|----------|--|
| EDUC 601 | Concepts and Issues in Education (3)               |
| EDUC 605 | Research and Information Technology (3)            |
| SCED 647 | Advanced Teaching and Learning Processes (3)       |
| SCED 741 | Curriculum Development in the Secondary School (3) |
| SCED 781 | Integrated Professional Practice Seminar (3)       |

#### Diversity and Differentiation Category

*(select one from the list below)*

- |          |   |
|----------|---|
| EDUC 560 | Teaching in a Multicultural Society (3) |
| SCED 649 | Teaching Gifted Students (3)            |
| SPED 640 | Characteristics of Diverse Learners (3) |

#### Electives (15 credits)

At least 6 credits must be selected from courses numbered 600 to 799. All electives are planned in terms of the needs and goals of the individual student and must be approved by the adviser.

Thesis Plan (minimum 33 credits)

#### Required Courses (21 credits)

- |          |  |
|----------|--|
| EDUC 601 | Concepts and Issues in Education (3)               |
| EDUC 605 | Research and Information Technology (3)            |
| SCED 647 | Advanced Teaching and Learning Processes (3)       |
| SCED 741 | Curriculum Development in the Secondary School (3) |
| SCED 897 | Master's Thesis in Secondary Education (6)         |

#### Diversity and Differentiation Category

*(select one from the list below)*

- |          |   |
|----------|---|
| EDUC 560 | Teaching in a Multicultural Society (3) |
| SCED 649 | Teaching Gifted Students (3)            |
| SPED 640 | Characteristics of Diverse Learners (3) |

#### Electives (12 credits)

At least 3 credits must be selected from courses numbered 600 to 799. All electives are planned in terms of the needs and goals of the individual student and must be approved by the adviser.

All students must pass SCED 781 with the grade of A or B (each course may be repeated once) or successfully complete SCED 897, Thesis.

## **SPECIAL EDUCATION (M.ED.)**

Degree: Master of Education

Program Director: Amy M. Pleet

410-704-6001

apleet@towson.edu

The Master of Education in Special Education is an applied professional program designed to meet urgent needs of the educational community. Housed in the College of Education, the program prepares special education professionals in one of two tracks: Special Education Certification or Special Education Teacher as Leader with focus areas in inclusion, technology or transition to adulthood.

The degree program is for professionally certified teachers seeking an advanced degree and the professional skills to meet the educational needs of students with disabilities.

The Special Education Certification Track provides the skill development and knowledge base established by the Council for Exceptional Children's Standards for Beginning Special Educators and will meet the requirements for the Maryland State Department of Education's Special Education Generic Certification at either infant/primary (birth-grade 3), elementary/middle (grades 1-8), or secondary/adult (grades 6-12+) levels. The program emphasizes the following themes: collaboration and consultation, translation of effective instruction and management research base into practice, and cross categorical rather than disability specific approaches.

The Special Education Teacher as Leader Track follows the Council for Exceptional Children's Special Education Administrators Standards and satisfies 12 of the 18 credits for the Maryland Administrator I Certificate. The Teacher as Leader Track will include the following themes: administration and supervision, curriculum development, research and legal issues. In addition, students will select an area of focus for further study in inclusion, technology, or transition to adulthood.

The Inclusion Focus prepares special education leaders with skills for positions involving staff development in instructional and management strategies, supervision and administration of inclusive programs and curriculum design. The Technology Focus prepares special education leaders with skills in computer technology and utilization, alternative communication, assistive technology and Web-based instruction. The Transition to Adulthood Focus prepares secondary special education leaders with skills in career development, student-centered planning and interagency collaboration for youth with disabilities. Students have the option of electing either a thesis or graduate project.

Many participants complete the program on a part-time basis, although full-time study is encouraged. A majority of the graduate students in the Special Education program are full-time working professionals taking classes in the afternoon or evenings. Professionals seeking to advance or change careers comprise a substantial portion of the student population in the Special Education program including those who intend to become special education teachers, leaders and specialists in inclusion, technology or transition to adulthood.

### **General Admission Requirements**

- A baccalaureate degree from an accredited college or university.
- An overall minimum GPA of 3.00 for full admission to the program, and a 2.75 GPA for conditional admission, based on the last 60 credits of total undergraduate and post-baccalaureate study.

### **Track Specific Admission Requirements**

#### **Special Education Certification Track**

- Current professional teaching certificate.
- Completion of reading requirements for renewal of Maryland teaching certificate (ECED /ELED 12 credits; SCED 6 credits)

**Special Education Teacher as Leader Track**

- Current professional certification in special education.
- Current professional teaching certificate in general education is recommended but not required.

**NOTE:** A professional teaching certificate is a prerequisite for admission to the program. Prior to enrolling in any course work, non-certified applicants should contact the M.A.T. program office at 410-704-5388 to obtain information about earning a professional teaching certificate.

**Degree Requirements****Special Education Certification Track (36 credits)****Initial Courses (9 credits)**

SPED 637	Inclusion for the Classroom Teacher (3)
SPED 640	Characteristics of Diverse Learners (3)
Elective	Related graduate course approved by adviser

**Core Courses (12 credits)**

EDUC 605	Research and Information Technology (3)
SPED 525	Formal Tests and Measurements for Students with Disabilities K-12 (3)
SPED 603	Informal Tests and Measurements for Students with Disabilities K-12 (3)
SPED 605	Working with Families of Students with Disabilities (3)

**Curriculum/Methods Courses (9 credits)**

*Select three courses.*

SPED 641	Curriculum/Methods of Instruction K-12 (3)
SPED 607	Curriculum/Methods of Classroom Management for Students with Disabilities (3)

SPED 527	Curriculum/Methods of Social, Emotional and Motor Development for Students with Disabilities K-12 (3) – EC/EL
SPED 601	Curriculum/Methods of Instruction for Secondary Transition (3) – SC

**Internship and Exit Requirements (6 credits)**

SPED 741	Internship (6)
	Portfolio Development and Review

Passing score on Praxis II: Special Education Specialty is required for Maryland certification, but not for graduation.

**Special Education Teacher as Leader Track (36-42 credits)****Initial Courses (9 credits)**

SPED 640	Characteristics of Diverse Learners (3)
SPED 635	Legal Foundations of Special Education (3)
EDUC 605	Research and Information Technology (3)

**Administration Courses (12 credits)**

EDUC 603	School Law (3)
ECED 665/ ELED 665/ SCED 741	} Curriculum Development (3)
ELED 781/ SCED 683	
ELED 716/ SCED 643	} Seminar in Supervision (3)
	} School Administration (3)

**Focus Areas**

*Select one of the following focus areas.*

**Focus A: Inclusion  
Required Courses**

SPED 6xx	Consultation, Collaboration and Staff Development for the Inclusion Specialist (3)
SPED 6xx	Implementing Inclusive Programs (3)



- SPED 646 Using Technology to Differentiate Instruction (3)  
 SPED 6xx Positive Behavior Support Plans: Design and Implementation (3)

### Focus B: Technology

#### Required Courses

- ISTC 541 Computer Technology and Utilization (3)  
 ISTC 605 Web-Based Instruction in Education (3)  
 SPED 613 Assistive Technology for Students with Disabilities (3)  
 SPPA 714 Augmentative/Alternative Communication (3)

### Focus C: Transition to Adulthood

#### Required Courses

- SPED 601 Curriculum/Methods of Instruction for Secondary Transition (3)  
 SPED 6xx Career Development for Students with Disabilities (3)  
 SPED 6xx Student Centered Planning, Self Determination and Student Outcomes (3)  
 SPED 6xx Interagency Collaboration and Adult Linkages for Students with Disabilities (3)

### Exit Requirements

Portfolio Development and Review and one of the following.

*Select one:*

#### Graduate Project

- SPED 880 Graduate Project in Special Education Inclusion, Technology or Transition (3)

or

#### Master's Thesis

- EDUC 761 Research in Education (3)  
 SPED 897 Master's Thesis in Special Education (6)

NOTE: To complete the Administrator I Certification, students must have earned a master's

degree plus 18 credits. They must also complete the following courses: SCED 797 Internship in Educational Leadership and HRD 644 Team Building.

### FAMILY STUDIES CERTIFICATE

Students interested in enhancing their knowledge of family-related issues might consider pursuing the Post-Baccalaureate Certificate in Family Studies as they complete their master's degree. For more information, see the description of this graduate program in the Interdisciplinary Programs section of the catalog.

### TEACHING (M.A.T.)

Degree: Master of Arts in Teaching  
 Program Manager: Rachel Carter  
 410-704-5388  
[rcarter@towson.edu](mailto:rcarter@towson.edu)

Program Director and Secondary Coordinator:  
 Deborah Piper  
 410-704-4935  
[dpiper@towson.edu](mailto:dpiper@towson.edu)

Program Coordinators:  
 Early Childhood: Edyth J. Wheeler  
 410-704-2460  
[ejwheeler@towson.edu](mailto:ejwheeler@towson.edu)

Elementary: Charles Blume  
 410-704-5776  
[cblume@towson.edu](mailto:cblume@towson.edu)

Special Education: Amy Pleet  
 410-704-6001  
[apleet@towson.edu](mailto:apleet@towson.edu)

The Master of Arts in Teaching (M.A.T.) is an option for those without formal training in the field of education who wish to enter the teaching profession. It is well suited to recent graduates and to those seeking to change careers. A graduate of this program will meet state teacher certification requirements\* within the General Education Tracks of Early Childhood, Elementary or Secondary Education. A student may also choose the Special Education Track in either Early Childhood, Elementary or Secondary Education. The General

Education Tracks may be completed as an Accelerated full-time or Flexible part-time program. Please note that the Special Education Track is only currently available as a Flexible program. The Accelerated (one-year) program requires a full-time commitment to courses and field placement. This program will encompass a summer semester, fall semester and an extended spring semester. The Flexible part-time program allows students to design a course load to fit their schedule (generally 1-3 courses per semester). Please note that Flexible program students must be able to participate in a minimum of 8 hours of daytime field experience per course during the Fall and Spring semesters, complete substantial daytime observation/participation hours (approximately 60-110 hours) along with Internship I, and become full-time for Internship II in the 18-week extended final semester. The development and presentation of a portfolio that demonstrates attainment of national performance standards will take the place of a master's thesis. Guidance in portfolio development is an integral part of the program.

\*Although not an M.A.T. program requirement, the Maryland State Department of Education (MSDE) additionally requires that all applicants for state teaching licensure successfully complete the PRAXIS II exam. Most students take PRAXIS II during their final semester of program course work.

### Admission Requirements

- A baccalaureate degree from an accredited institution with an undergraduate major in the liberal arts or arts and sciences.
- General Track Secondary certification requires a minimum of 36 credits in a content major. Special Education Track Secondary certification requires a minimum of 21 credits in a content major. Secondary content majors include: English, math, biology, chemistry, physics, earth-space science, social science, or one of the modern languages (French, German or Spanish). Contact the M.A.T. program office for evaluation of transcripts to determine any needed content area course work.
- Early Childhood or Elementary certification for both the General Track and Special Education Track requires a well-rounded liberal arts background, including specific courses in English, math, science and the social sciences. In addition, Special Education Track Early Childhood and Elementary certification students are required to take the following graduate-level reading courses as prerequisites to the program: ECED 618 Thinking through the Processes and Acquisition of Literacy/ELED 611 Principles and Processes of Language and Literacy and EDUC 717 Children's Literature and Other Materials for Teaching Reading. Contact the M.A.T. program office for evaluation of transcripts to determine any needed content area course work.
- A 3.00 GPA is required for full admission. A GPA between 2.75 and 2.99 may qualify the applicant for conditional admission. All GPA calculations for admission are based upon the last 60 credits of undergraduate and post-baccalaureate study.
- Passing scores (as determined by MSDE) on the PRAXIS I exam (reading, writing and mathematics) must be submitted for acceptance into the program. Please send copy of score report directly to the M.A.T. program office.
- A brief admission essay in which the applicant discusses reasons for entering the teaching profession. Send directly to the M.A.T. program office.
- Two narrative letters of reference. Send directly to the M.A.T. program office.
- A vita or resume. Send directly to the M.A.T. program office.
- Application and all admission credentials must be submitted by March 15 for Accelerated program applicants; late applications may be considered if space is available. Flexible program students may apply year-round.
- An interview with the program director may be required.

Please note: The Teacher Education Executive Board (TEEB) reserves the right to refuse, deny

or revoke the application for admission to professional education programs or entry into student teaching of any student whose observed conduct is deemed incongruent with established guidelines of student demeanor for those planning to enter the teaching profession.

**Please note:** In order to successfully complete the MAT Program and graduate, students must maintain a 3.0 GPA in the graduate program, earn no more than two grades of "C" in MAT course work, and complete all content prerequisite with grades of "B" or higher prior to entering EDUC 798; additionally, all students must present a Showcase Portfolio with scores of "3" or higher for all 10 INTASC Principles as a program exit/graduation requirement.

## Degree Requirements

### General Education Tracks

Thirty-seven credits of course work are required to complete the M.A.T. program in Secondary Education General Track. Thirty-nine credits of course work are required to complete the M.A.T. program in General Track Early Childhood or Elementary Education certification. The required courses are listed on the next page.

### Core Curriculum Courses

*The following courses are required for all three certification levels.*

EDUC 730	Principles of Learning, Development and Diversity (3)
EDUC 731	Curriculum and Assessment (3)
EDUC 734	Teacher as Researcher (3)
EDUC 797	Internship I with Seminar (3)**
SPED 637	Inclusion for the Classroom Teacher (3)

**\*\*Please note** that a lab fee is attached to this course.

Flexible program students must complete 60-110 hours of field experience and Accelerated program students spend a minimum of two days each week in a Professional Development School (PDS) as a requirement for this

course. Taken concurrently with EDUC 734 in the semester prior to Internship II.

EDUC 798 Internship II with Seminar (6)\*\*

**\*\*Please note** that a \$600 lab fee is attached to this course.

All students complete 18 weeks of full-time, 5-day/week internship in a public school setting. Completed in the final semester.

### Early Childhood and Elementary Certification

ECED 608/	
ELED 685	Social Studies Methods (3)
ECED 618/	
ELED 611	Processes and Acquisitions of Literacy (3)
ECED/	
ELED 621	Literacy Assessment (3)
EDUC 717	Children's Literature and Other Materials to Teach Reading (3)
EDUC 787	Internship in the Methods of Teaching Reading (3)
MATH 621	Seminar in Teaching Elementary and Middle School Mathematics (3)

### Secondary Certification

EDUC 735	Proseminar: Problems and Issues (3)
ISTC 501	Integrating Instructional Technology (3)**
<b>**Please note</b> that a lab fee is attached to this course.	
SCED 560	Using Reading and Writing in the Secondary School (4)
SCED 561	Teaching Reading in the Secondary Content Areas (3)
Secondary Education Methods Course (3)	

## Degree Requirements

### Special Education Tracks

Thirty-nine credits of course work are required to complete the M.A.T. Program in the Special Education Track.

## 52 DEGREE AND CERTIFICATE PROGRAMS

### Core Curriculum Courses

*The following courses are required for all three certification levels.*

- EDUC 730 Principles of Learning, Development and Diversity (3)
- SPED 525 Formal Tests and Measurements for Students with Disabilities K-12 (3)
- SPED 603 Informal Tests and Measurements for Students with Disabilities K-12 (3)
- SPED 607 Curriculum/Methods of Classroom Management for Students with Disabilities K-12 (3)
- SPED 605 Working with Families of Students with Disabilities (3)
- SPED 637 Inclusion for the Classroom Teacher (3)
- SPED 641 Curriculum Methods of Instruction for Students with Disabilities K-12 (3)
- EDUC 797 Internship I with Seminar (3)\*\*

**\*\*Please note that a lab fee is attached to this course.**

Flexible program students must complete 60-110 hours of field experience and Accelerated program students spend a minimum of two days each week in a Professional Development School (PDS) as a requirement for this course. Taken concurrently with EDUC 734 in the semester prior to Internship II.

- EDUC 798 Internship II with Seminar (6)\*\*

**\*\*Please note that a \$600 lab fee is attached to this course.**

All students complete 18 weeks of full-time, 5-day/week internship in a public school setting. Completed in the final semester.

### Early Childhood and Elementary Certification

- ECED/ELED 621 Literacy Assessment (3)
- SPED 613 Assistive Technology (3)
- EDUC 787 Internship in the Methods of Teaching Reading (3)

### Secondary Certification

- SCED 560 Using Reading and Writing in the Secondary School (4)
- SCED 561 Teaching Reading in the Secondary Content Areas (3)
- SPED 601 Curriculum Methods of Instruction for Secondary Transition (3)





## THE COLLEGE OF FINE ARTS AND COMMUNICATION

As a fine arts center for the state of Maryland, the College of Fine Arts and Communication provides graduate education and training in a wide range of fields including art education, studio art, communications management, music education, music performance and theatre. Programs offer students training and practical experience that enables them to enhance their creative and analytic abilities to begin or advance careers or to enter doctoral programs.

In coordination with their studies, students and faculty assist and perform in several facilities within the campus community. These include the Center for the Arts with a Concert Hall, Mainstage Theatre, Studio Theatre, Holtzman Art Gallery, Asian Arts & Culture Center, and many rehearsal and practice rooms; art studios and computer labs; the University Union Art Gallery; Burdick Hall with facilities for dance; Stephens Hall Theatre, providing performance space for dance, opera and musicals; and Van Bokkelen Hall and the Media Center, housing computer and photojournalism laboratories, the debate and speech facility, WTMD-FM, XTSR-AM, WMJF-TV, and laboratories for radio, television and film. The college contributes to the cultural life of Towson and the metropolitan area by offering more than 400 performances, exhibitions, film and video screenings, debates, lectures and workshops each year.

International exchange programs with schools in China, Germany, Ireland, Korea, Russia, Italy and the United Kingdom are also available. Notable alumni include theatre graduates Charles "Roc" Durton, John Glover and Dwight Schulz and music graduate Spiros Malas.

Christopher H. Spicer, Dean

### COLLEGE OFFICE

Center for the Arts, Room 394B

410-704-3288

Fax: 410-704-6026

[www.towson.edu/tu/finearts](http://www.towson.edu/tu/finearts)

### Master's Degree Programs

Art Education

Art, Studio

Communications Management

Music Education

Music Performance/Composition

Theatre

### Post-baccalaureate Certificate Programs

Music Education – Dalcroze, Orff and

Kodaly

Strategic Public Relations and Integrated Communications

## ART EDUCATION

Degree: Master of Education  
 Program Director: Jane Bates  
 410-704-2797  
 jbbates@towson.edu

The degree program is designed to provide advanced training in art education, to promote the professional growth of art educators through individual research, and to increase the art educator's skill and knowledge in art production, art history, aesthetics and art criticism.

### Admission Requirements

- An undergraduate degree in art education and/or certification as a public school art teacher.
- A minimum grade point average of 3.00 for full admission or 2.50 for conditional admission. All GPA calculations for admission are based upon the last 60 credits of undergraduate and post-baccalaureate study.

### Degree Requirements

The 33-hour program consists of 15 credits of required course work and 18 credits of electives. The required courses are taken in a specified sequence culminating in the writing of a Master's Project similar in scope to a traditional thesis.

### Sequence of Required Courses (15 credits)

1. EDUC 601 Issues & Concepts in Education (3) (Prerequisite: graduate standing)
2. ARED 797 Seminar in Art Education (3) (Prerequisite: EDUC 601)
3. EDUC 605 Research & Information Technology (3)
4. ARED 880 Art Education Project I (3) (Prerequisite: ARED 797, EDUC 605)
5. ARED 881 Art Education Project II (3) (Prerequisite: ARED 880)

## Elective Tracks (18 credits)

In an effort to provide for diverse interests and ensure flexibility, the program offers three elective tracks. Students select one track from among the following:

### 1. Broad-based Studio Track

This track is designed to enhance K-12 art teaching. Students select a variety of courses drawn from studio, art history and art education areas.

### 2. In-depth Studio Track

This track is designed for those concentrating their electives in a studio area.

### 3. Historical Track

This track is designed for those interested in pursuing cultural/historical aspects of art and art education. Students concentrate electives in art history.

Courses at the 600 to 800 level should ordinarily be selected, however, a maximum of 9 credits in 500-level courses may be taken with the approval of the student's advisor. Six credits may be taken in departments other than art with prior approval.

## ART, STUDIO

Degree: Master of Fine Arts  
 Program Directors:  
 Stuart Stein  
 410-704-2801  
 sstein@towson.edu

Jan Baum  
 410-704-2800  
 jbaum@towson.edu

The Master of Fine Arts degree at Towson University is designed to meet the needs of those who wish to pursue the study of art, either for a career as an artist, or as a college-level instructor. The program consists of professional study in painting, photography, digital media, graphic design, illustration, sculpture, printmaking, ceramics, metalsmithing and jewelry and interrelated media. M.F.A. students are encouraged to attend full time, but may attend part time for part or all of their



degree work. The M.F.A. student enrolled full time also maintains a residency in the Department of Art, working in an assigned studio space.

The Department of Art fosters an M.F.A. program that draws from all aspects of a diverse and comprehensive curriculum. M.F.A. students study within a specific concentration while also being able to choose from a wide variety of learning experiences. The conceptual and ideological bases for artistic endeavors are explored through art history, graduate seminars and weekly critiques. The goals of the M.F.A. program are to direct the M.F.A. student to explore, focus and excel. Through conceptual and ideological dialogue, as well as the availability of technical expertise, the M.F.A. student at Towson is directed toward thematic consistency. While the postmodern environment encourages the integration of new technologies, interdisciplinary approaches and multicultural influences, the need to focus ideas within this climate is foremost in the mentoring of developing artists in the M.F.A. program.

Applicants to the M.F.A. program who are denied admission but display outstanding potential may be invited to participate in post-baccalaureate studies in studio art as preadmission course work for the M.F.A. program in Studio Art. Upon successful completion, these studies guarantee acceptance into the M.F.A. program in Studio Art.

### Admission Requirements

- A baccalaureate degree, preferably in art.
- A minimum grade point average of 3.00 for full admission, 2.75 for conditional admission, or 2.50 for provisional admission. All GPA calculations for admission are based upon the last 60 credits of undergraduate and post-baccalaureate study.
- The following credentials must be sent directly to the graduate school program director of the studio art program:
  - A letter of intent: statement of your objectives.
  - A current resume.

- Two letters of recommendation.
- A slide portfolio of work: 20 labeled 35mm color transparencies enclosed in a plastic slide sheet.

The application deadline is March 15 for fall admission and November 1 for spring admission.

### Degree Requirements

*Completion of 60 credits of degree work:*

- 24 credits of 600- and 700-level studio art courses in a selected area of study
- ART 783 M.F.A. Seminar (3)
- Art history (9 credits)
- Elective art courses (6 credits selected with the consent of the adviser from approved graduate courses)
- Electives (9 credits selected with the consent of the adviser from any discipline)
- Final Semester
  - ART 785 M.F.A. Studio II (3)
  - ART 896 M.F.A. Project (6)
- Students are required to participate in both a midterm and end-of-term review of their work each semester. Students failing the midterm review will have until the end-of-term review to make necessary adjustments. The review committee has the right to recommend dismissal from the program if it is deemed necessary.

### COMMUNICATIONS MANAGEMENT

Degree: Master of Science

Program Director: Mark McElreath

410-704-3803

mmcelreath@towson.edu

The Master of Science in Communications Management is an interdisciplinary program in mass communication, communication studies, marketing and management. It focuses on how to manage and appropriately integrate a variety of communication functions. The program seeks to help students gain the knowledge and skills to research, plan, implement and evaluate communication activities designed to achieve organizational goals.

The Master of Science in Communications Management examines both internal and external organizational communication, including employee communication, advertising, marketing, public relations and integrated communication. It is designed for both career-oriented individuals who want to advance in their chosen fields and for students who intend to pursue doctoral studies. Students should work with the program director to identify the best combination of courses to meet their specific needs.

Students are required to take the following courses as a cohort: MCOM 605, MNGT 601 in the fall; MCOM 606 and MKTG 603 in the spring; and MCOM 685 in the first summer session. Members of the cohort make a commitment to complete this set of courses within one year. Each cohort is designed to help students work together as a network of professional colleagues in class, on campus and online. Students eligible to earn the Graduate Certificate in Strategic Public Relations and Integrated Communications may not have earned more than one C for any of the required courses.

In addition to the graduate certificate in strategic public relations and integrated communications, students enrolled in this program who complete the following courses will be eligible to earn a graduate certificate in management and leadership development: MNGT 601, HRD 602, HRD 644, PRWR 621 and one of the following – MNGT 602, MNGT 609 or HRD 642. For more details about this certificate see Management and Leadership Development Certificate.

### Admission Requirements

- A bachelor's degree with at least 24 credits of related course work in one or a combination of the following fields: mass communication, public relations, advertising, marketing, and management; at least one advanced writing course; one statistics course; or equivalent professional experiences that are documented by the student and approved by the program director.
- A minimum overall undergraduate GPA of 2.75 for conditional admission or a GPA of

3.00 or higher for full admission. All GPA calculations for admission are based upon the last 60 credits of undergraduate and post-baccalaureate study.

- The following materials should be sent directly to the Graduate School Office:
  - Completed application
  - Transcripts
  - Fees
- The following materials should be sent directly to the program director:
  - One letter of recommendation. Use the Recommendation Form in the Graduate School Application Packet.
  - A resume.
  - A statement in 1,000 words or less (typed, double-spaced), based on your resume, that explains your professional and academic experiences with researching, planning, implementing and evaluating communication programs and campaigns. The statement should focus more on your understanding of communication processes rather than on the specifics of various campaigns or programs. The statement should highlight and demonstrate the special knowledge, skills and abilities you have to succeed in this graduate program.
  - A cover letter expressing intent and/or interest, indicating when you wish to enroll and for which fall cohort you are applying.

There are two application deadlines for each year's fall cohort. The application deadline for students wishing to take electives (or prerequisites) in the spring and begin their cohort set of courses in the fall is October 1.

A limited number of cohort positions will be available for applications submitted by March 1.

Prerequisite classes may not be offered in summer sessions so students accepted in March may need to postpone cohort classes until the following year.

**NOTE:** Regardless of whether you intend to begin your graduate career in fall or spring, all applicants are reviewed as candidates for the next fall cohort.

## Degree Requirements

- Completion of required prerequisite courses.
- Completion of a total 36 credits of course work: 21 credits of required courses and 15 credits of electives. A minimum of 27 credits (including graduate project or thesis) must be earned at the 600-800 levels.
- To receive a Master of Science in Communications Management students may not have earned more than two Cs for any of the required or elective courses.

## Core Requirements (21 credits)

MCOM 605	Theory of Public Relations and Organizational Communication (3)
MCOM 606	Practice of Public Relations and Organizational Communication (3)
MCOM 685	Managing Strategic Public Relations and Integrated Communications Campaigns (3)
MNGT 601	Administrative Theory and Practice (3)
MKTG 603	Marketing Administration (3)

Six hours of a directed research project or thesis supervised by a member of the faculty in Mass Communication and Communication Studies, Management or Marketing:

MCOM 880	Graduate Project in Mass Communication or
MCOM 897 and MCOM 898	Thesis

## Electives (15 credits)

*At least one writing, information technology, or strategic communications course from the following:*

COMM 695	Independent Study in Communication Studies (3)
ISTC 541	Computer Technology and Utilization (3)
ISTC 605	Web-based Instruction in Education (3)

ISTC 617	Distance Education in Theory & Practice (3)
ISTC 633	Instructional Video (3)
ISTC 635	Theory and Design of Computer-based Instruction (3)
ISTC 655	Media Design and Production (3)
ISTC 663	Applied Psychology of Learning (3)
ISTC 687	Computer-based Instruction (3)
MCOM 507	Writing for the New Media (3)
MCOM 601	Media Writing (3)
MCOM 547	Advertising Campaigns (3)
MCOM 551	Public Relations for Nonprofit Organizations (3)
MCOM 572	International Advertising (3)
MCOM 617	International Communication Campaigns (3)
MCOM 633	Theories of Mass Communication (3)
MCOM 783	Internship in Public Relations (3)
MCOM 795	Independent Study in Mass Communication (3)
PRWR 613	Theory of Exposition (3)
PRWR 617	Editing (3)
PRWR 619	Communication in the Non-profit Sectors (3)
PRWR 621	Business Writing (3)
PRWR 623	Technical and Scientific Writing (3)
PRWR 625	Design, Layout and Production (3)
PRWR 675	Corporate Script Writing (3)
PRWR 729	Corporate Communications Consulting (3)

*At least one course dealing with ethics from the following:*

MCOM 533	Media Ethics (3)
PHIL 563	Business Ethics (3)
MNGT 609	Business and Society (3)
MCOM 635	Journalism Ethics (3)
COMM 695	Independent Study in Communication Studies (3)
MCOM 795	Independent Study in Mass Communication (3)

*At least one research course from the following:*

MCOM 631	Research Methods in Mass Communication (3)
MKTG 607	Marketing Research (3)
HRD 605	Applied Research in Human Resource Development (3)
LBPS 601	Approaches to Graduate Research (3)
POSC 561	Research Methods in Political Behavior (3)
PSYC 585	Experimental Design (3)
ISTC 685	Research in Instructional Technology (3)
WMST 609	Applied Research Methods I (3)
SOCI 582	Research Methods (3)
COMM 695	Independent Study in Communication Studies (3)
MCOM 795	Independent Study in Mass Communication (3)

*At least one course dealing with strategic management from the following:*

COMM 519	Organizational Communication (3)
COMM 695	Independent Study in Communication Studies (3)
MKTG 604	Global Marketing (3)
MKTG 605	Strategic Marketing Management (3)
MKTG 609	Advertising Management (3)
MNGT 561	Total Quality Management (3)
MNGT 615	Strategic Management (3)
MNGT 670-679	Special Topics in Management (3)
MNGT 695	Independent Study in Management (3)
ACCT 601	Financial Accounting for Non-Accountants (3)
MCOM 559	Professional Issues in Public Relations (3)
MCOM 682	Issues Management (3)
MCOM 795	Independent Study in Mass Communication (3)
HRD 641	Change in the Workplace (3)

*At least one course dealing with people management from the following:*

COMM 518	Communication Training and Development (3)
COMM 522	Conference and Meeting Management (3)
COMM 601	Theories and Research in Intercultural Communication (3)
COMM 602	Public Advocacy and Conflict Management (3)
HRD 601	Introduction to Human Resource Development (3)
HRD 602	Leadership Theory and Practice (3)
HRD 604	Compensation and Benefits Management (3)
HRD 642	Organizational Behavior (3) (formerly PSYC 642)
MKTG 602	Consumer Behavior (3)
MNGT 602	Conflict Management in Commerce and Industry (3)
MNGT 603	Human Resource Management in a Global Economy (3)
MNGT 604	Labor Relations (3)
HRD 644/	
PSYC 644	Team Building (3)
COMM 695	Independent Study in Communication Studies (3)
MCOM 795	Independent Study in Mass Communication (3)
WMST 601	Women and Gender in the Workplace (3)
WMST 602	Women and Communication (3)
WMST 611	Women, Public Policy and Social Change (3)

**NOTE:**

1) Up to 6 hours of approved graduate courses may be transferred from other approved universities.

2) No more than 9 credit hours can be taken of 500-level courses.

3) Students who have passed an accreditation examination administered by a professional organization, such as the Public Relations Society of America or the International Association of Business Communicators, may be

eligible to earn up to 3 academic credits for independent study, based on the presentation of a professional portfolio and approval by the program director.

4) Some elective courses may have prerequisites. Students are responsible for making sure they have met these prerequisites, if any, prior to taking the course.

5) Some courses may not be offered each semester. Students should consult each semester's schedule of classes when determining which courses to take.

6) No more than two 3-credit Independent Study courses may be applied to the degree; and, all Independent Study courses need to be approved by the program director prior to enrollment.

## STRATEGIC PUBLIC RELATIONS AND INTEGRATED COMMUNICATIONS CERTIFICATE

Program Director: Mark McElreath

410-704-3803

mmcelreath@towson.edu

This program consists of five courses that are taken with a cohort, a group of students who take these courses together. Each cohort is designed to help students work together as a network of professional colleagues in class, on campus and online.

Certificate students make a commitment to complete this set of courses as a cohort within one academic year – from September to July (MCOM 605 and MNGT 601 in the fall; MCOM606 and MKTG 603 in the spring; and MCOM 685 in the first summer session). Students who earn the certificate are well on their way to completing the master's degree in communications management.

### Required Courses (15 credits)

MCOM 605	Theory of Public Relations and Organizational Communication (3)
MNGT 601	Administrative Theory and Practice (3)
MCOM 606	Practice of Public Relations and Organizational Communication (3)

MKTG 603	Marketing Administration (3)
MCOM 685	Managing Strategic Public Relations and Integrated Communications Campaigns (3)

Students eligible to earn the certificate in Strategic Public Relations and Integrated Communications may not have earned more than one C for any of the required courses.

### Admission Requirements

\*See Communications Management for requirements and deadlines.

## MUSIC EDUCATION

Degree: Master of Science

Program Director: Michael Jochen

410-704-2257

mjothen@towson.edu

The Master of Science in Music Education provides a flexible curriculum that allows students to earn up to 15 elective credits in a field of specialization. In consultation with the graduate adviser, students may select a group of courses in which they are interested, such as music education, applied music, music theory, music history, music composition or other graduate areas of professional interest. Students may elect to work concurrently on the graduate Certificate in Music.

Graduates of this program are usually employed as music teachers in public or private schools in the areas of vocal-general and/or instrumental music. Others are employed as private teachers or administrators, or as church musicians.

### Admission Requirements

- A bachelor's degree in music education or music or certification as a public school music teacher.
- A minimum grade point average of 3.00 for full admission or 2.50 for conditional admission. All GPA calculations for admission are based upon the last 60 credits of undergraduate and post-baccalaureate study.
- Completion of music theory and history advisory examinations.

**Degree Requirements**

**Plan A: Master of Science in Music Education with Thesis (minimum 34 credits)**

**Required Courses (24 credits)**

MUED 601	Current Trends in Music Education (3)
MUED 661	Seminar in Instrumental Music (3) <i>or</i>
MUED 662	Seminar in Choral Music (3)
MUED 695	Research Methods in Music Education (3)
MUSA xxx	Performing/Composing Experiences (3) (see Music Applied (MUSA) Private Lessons and Ensembles under Course Descriptions)
MUSC xxx	History/Literature (3)
MUSC xxx	Theory/Composition (3)
MUSC 897	Thesis (6)

**Electives (10 credits)**

Selected with approval from any 500- to 800-level courses. A maximum of 9 credits may be at the 500 level.

**Plan B: Master of Science in Music Education with Graduate Project (minimum 34 credits)**

**Required Courses (19 credits)**

*Identical to Plan A except MUSC 880 Graduate Project replaces MUSC 897 Thesis*

**Also Required**

MUSC 880	Graduate Project - Paper (1) <i>or</i>
	Graduate Project - Recital (1) <i>or</i>
	Graduate Project - Composition (1) <i>or</i>
	Graduate Project - Practicum (1)

**Electives (15 credits)**

Selected with approval from any 500- to 800-level courses. A maximum of 9 credits may be at the 500 level.

Students are required to successfully complete the comprehensive examination covering course content in music and music education.

**MUSIC EDUCATION CERTIFICATE**

Program Director: Michael Jothen  
410-704-2257  
mjothen@towson.edu

The graduate Certificate in Music provides comprehensive training for a music education specialist in an area of professional interest and/or need. In consultation with the program director and an appropriate faculty adviser, a sequence of courses and experiences totaling 15 to 21 credits is identified which help music educators to understand the rationale and curricula associated with their chosen interest. A sequence of instruction provides core experiences, supporting experiences, elective opportunities, and a culminating experience appropriate to the area of interest. The program is designed to assist music educators in securing focused, advanced study in a personal area of choice. The certificate may be earned separately from, or in conjunction with, the Master of Science degree in Music Education.

Examples of core areas of study within the graduate Certificate in Music include the Application of Dalcroze, Orff and Kodaly, Community Music, Music Therapy, Conducting (instrumental and vocal), Studio Pedagogy and Music Industry.

**Admission Requirement**

Students must have a baccalaureate degree with a major in music education or be certified as a public school music teacher.

**Certificate Requirements: General**

Students must complete 15 to 21 credits of course work with a culminating application experience in their core area of interest.

**Certificate Requirements: DOK**

*Completion of 15 credits*

MUED 617	Choral Workshop in Elementary and Secondary School Music (2)
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MUED 630	Dalcroze, Orff and Kodaly: Principles and Techniques for the Music Classroom I (2)
MUED 631	Dalcroze, Orff and Kodaly: Principles and Techniques for the Music Classroom II (2)
MUED 632	Dalcroze Practices (2)
MUED 633	Orff Techniques (2)
MUED 634	Kodaly Techniques (2)
MUED 635	Dalcroze, Orff, Kodaly Pedagogy and Curriculum Development (3)

## MUSIC PERFORMANCE OR COMPOSITION

Degree: Master of Music

Program Director: Luis Engelke

410-704-4644

lengelke@towson.edu

The Master of Music program seeks to develop a high level of musicianship and scholarly skills. It is designed for students who exhibit special talents in performance or composition and have completed sufficient undergraduate courses to meet the requirements for admission. The degree prepares the candidates for careers in teaching, performing and composing.

## Admission Requirements

- A baccalaureate degree in music or music education.
- A supplemental application available from the department or the Graduate School must be filed.
- Acceptable evaluation by two persons familiar with the applicant's scholarly and music performance and aptitude. Evaluations are completed on the Master of Music Degree Recommendation Form obtained from the department or the Graduate School.
- Acceptable performance on an audition in the student's major performance area.
- Acceptable scores on the theory and music history placement test. Students who do not meet minimal requirements may be required to enroll in prescribed courses.

- A minimum grade point average of 3.00 for full admission or 2.50 for conditional admission. All GPA calculations for admission are based upon the last 60 credits of undergraduate and post-baccalaureate study.

## Degree Requirements

### Required Credits (21 credits)

- Private Lessons (12 credits)  
(from student's major performance area)
- History (3 credits)  
MUSC 685 Bibliography and Research (3)
- Theory (3 credits)  
MUSC 631 Advanced Theory (3)
- Ensembles (suitable for the major performance area) (2 credits)  
Selected, with approval, from Music Applied (MUSA) Ensembles (1) listed in the Course Descriptions section of this catalog.
- Recital (1 credit)  
MUSC 797 Graduate Recital (1)

### Electives (10 credits)

Selected with approval from any 500- to 800-level music courses. A maximum of 4 of the elective credits may be taken in lessons and/or ensembles.

Students without documented pedagogy experience must take MUSC 543 (Instrumental Pedagogy).

Students must satisfactorily complete the comprehensive examination.

## THEATRE

Degree: Master of Fine Arts

Program Directors:

Tom Casiero

410-704-3851

tcasiero@towson.edu

Juanita Rockwell

410-704-3851

jrockwell@towson.edu

www.towson.edu/theatre/grad

The Towson University Master of Fine Arts in Theatre is dedicated to creating a fluid,

alternative environment to support the development of the total theatre maker. The program is designed to foster self-directed processes that will challenge, expand and develop each participant's artistic vision. This vision is explored in terms of its structural, aesthetic and cultural context, as well as its skillful application of craft.

Intercultural, interdisciplinary, collaborative, and socially relevant, Towson's M.F.A. in theatre is for artists who cannot be content working in a single discipline or in the traditional conservatory model. They want to construct the soundscape that interacts with the spoken text they've written. They want to create the installation in which they will perform. They want to build puppets and learn to bring them to life. They want to create work in non-theatrical environments with non-theatrical co-creators.

Students accepted into this program have already begun to articulate a creative vision, but have decided to return to graduate school to both expand and refine that vision. We seek artists who would feel restricted by a conservatory style program. Whether directing, designing, performing, producing, constructing or writing, the student/artist must be willing to work both independently and collaboratively. The program is based on the cross-fertilization of ideas among participants and the thoughtful implementation of human, material, economic and environmental resources. The program requires that its participants create their own opportunities, work in a variety of disciplines, and serve as self-producing artists.

Seminars and workshops with distinguished visiting artists play a major role in the foundation of the curriculum. Guest artists expose the student artist to a wide range of theatrical styles and methods, emphasizing their cultural contexts and underlying principles. Guests may facilitate a master class for one or more days, lecture or demonstrate as part of a required class, or work in extended residency with the students of the program.

Some of our guest artists and companies include Richard Armstrong (England), Philip Arnoult (Maryland), George Bartenieff (New York), Augusto Boal (Brazil), Kia Corthron

(New York), Donna DiNovelli (New York), Sabrina Hamilton (Massachusetts), Heinz Uwe Haus (Germany), Independent Eye (California), Jean-Claude van Itallie (Massachusetts), Gabriella Lev (Israel), Daniel Macivor (Canada), Akira Matsui (Japan), Momm Puppettheatre Michael Rohd (Oregon), San Francisco Mime Troupe (California), Shozo Sato (California), Teatro Abya Yala (Costa Rica), Theodora Skipitares (New York), Squonk Opera (Pennsylvania), Daniel Stein (California), Touchstone Theatre (Pennsylvania), Frits Vogels (Netherlands), Mac Wellman (New York), and Putu Wijaya (Indonesia).

While individuals will most likely have different experiences during their times in the program, there is a basic structure we suggest. Of the 60 credits required for graduation, 43 credits consist of the program's core courses. We encourage students to emphasize the core curriculum during the first two years, so as to leave the third year open to emphasize their final projects. During the first year of the program, student-artists are encouraged to explore their own artistic visions and the aesthetic of those around them—fellow students, guest artists, people focusing on other disciplines—both within the university and beyond. In the second year, student-artists continue to seek out opportunities to collaborate on projects with others while developing their own projects. Finally, in the third year, the student-artist seeks out collaborators to work on projects under their own development.

All graduate students approach projects from an interdisciplinary perspective, and each student works in a variety of disciplines. New work may be created in a variety of forms, such as interdisciplinary constructions or installations, ensemble creation, performance art, movement theatre, or productions of new scripts. Transformations of existing literature may involve reconstructing classic text or design elements, historical reinterpretation, or the integration of intercultural aesthetics. In directing and design, special attention is given to the collaborative creation of style. In text construction, special attention is given to innovative language and structure. In dramaturgy, special attention is given to aes-



thetic and cultural context. In technical production, special attention is given to safely integrating new technology, practices and materials. In performance, special attention is given to the integration of voice and movement as an expression of style. The student-artist is urged to combine disciplines within a given project, perhaps working as director/designer, technician/designer, or writer/performer.

### Admission Requirements

Applicants must hold a bachelor's degree from a regionally accredited college or university with a grade point average of 3.00 or higher. A minimum GPA of 2.50 is required for conditional admission. All matriculated students are accepted conditionally for one year. Before the end of the third semester of study, there will be a review process in which a student is either fully accepted or denied continuance.

Candidates are screened by both the M.F.A. program and by the Graduate School. The following should be submitted to the Graduate School no later than March 1:

- A Graduate School application with required fee.
- Official transcripts from every college or university attended.

The following are required as part of the department screening process and should be sent directly to the M.F.A. program directors, no later than March 1:

- A personal artistic statement outlining the candidate's goals as a theatre artist and the specific relevance of the M.F.A. program at Towson to the candidate's objectives.
- A current professional résumé.
- Slides, photographs, video, reviews, papers or other supporting materials in multiple artistic disciplines.
- Three letters of recommendation from individuals who can speak to the applicant's talent, scholarship, collaborative skills and ability to thrive in a self-directed program.
- A list of at least three other references, with telephone numbers, whom the department may contact for additional evaluations.

An interview with an audition and/or pre-

liminary portfolio review will be granted at the discretion of M.F.A. faculty following initial admission screening.

### Degree Requirements

The Master of Fine Arts in Theatre requires 60 credits.

#### Required Courses (43 credits)

THEA 601	Dramaturgy: Interdisciplinary (3)
THEA 602	Dramaturgy: Intercultural (3)
THEA 607	Self-Empowerment in Theatre (3)
THEA 608	Theatre Design Techniques (3)
THEA 609	Text Construction (3)
THEA 610	Theatre Systems (3)
THEA 675	Research Methods (3)
THEA 720	Graduate Directing (3)
THEA 740	Graduate Project Laboratory (2)
THEA 750	Graduate Project Rehearsal and Performance (2)
THEA 760	Integrated Seminar (3) (must be repeated at least once)
THEA 880	Final Project (6)

#### *One of the following:*

THEA 603	Performance: Solo (3)
THEA 605	Performance: Ensemble (3)
THEA 606	Voice/Movement Integration (3)

#### Electives (17 credits)

These courses are chosen in collaboration with a department adviser.

Portfolio review is required before registering for the final project.

Towson University reserves the right to change degree requirements for the M.F.A. Information on changes will be available from the graduate program directors.

With greater importance being placed on health and wellness, and key advances in healthcare, the need for health professionals with advanced degrees is at an all-time high.



## THE COLLEGE OF HEALTH PROFESSIONS

With greater importance being placed on health and wellness, and key advances in healthcare, the need for health professionals with advanced degrees is at an all-time high. Thus, the mission of the College of Health Professions is to provide the highest quality of graduate learning experiences in a wide range of health care professions that promote and enhance health and well-being. Emphasis is placed on theory-based applications for clinical practice, education, management and research that will prepare graduates to assume roles in a variety of educational, clinical and community settings.

The college offers doctoral, master's and graduate certificate programs. We are committed to the key values of lifelong learning, excellence, ethical and moral conduct, collaboration, and respect for the worth and dignity of all people. Graduates exhibit the highest ethical principles and professional behaviors in the application of knowledge and critical thinking and are proficient in the use of skills, effective communication and technology. Internships, clinical experiences, and/or independent studies provide opportunities to supplement and enhance each student's academic course work. Students have ready access to an outstanding array of opportunities in the many health care, educational and sport-related organizations in the surrounding area.

Graduate programs in the college are accredited by appropriate professional and educational agencies, thus enabling the successful graduate to sit for her or his professional licensure or certification exam where those credentialing mechanisms exist.

Charlotte E. Exner, Dean  
Raymond Stinar, Associate Dean

COLLEGE OFFICE  
Towson Center, Room 337  
410-704-2132  
Fax: 410-704-3479  
[www.towson.edu/tu/chp/](http://www.towson.edu/tu/chp/)

### Doctoral Degree Programs

Audiology  
Occupational Science

### Master's Degree Programs

Applied Gerontology  
(*See Interdisciplinary Programs section*)  
Health Science

- Administration
- Community Health Education
- School Health Education

Nursing  
Occupational Therapy  
(professional preparation and  
post-professional programs)  
Physician Assistant Studies  
Speech-Language Pathology

### Post-baccalaureate Certificate Programs

Clinician-Administrator Transition (CAT)  
Family Studies  
(*See Interdisciplinary Programs section*)  
Nursing Education

## AUDIOLOGY

Degree: Applied Doctorate in Audiology (Au.D.)

Program Director: Diana Emanuel

410-704-2417

demanuel@towson.edu

The Applied Doctorate in Audiology program is accredited by the Council on Academic Accreditation (CAA) of the American Speech-Language-Hearing Association.

The Au.D. curriculum consists of 104 credits including the following requirements: 31-37 credits of clinical practicum, which includes a one-year clinical residency, and 67-73 credits of course work. Course work includes 3 credits of electives selected from approved courses and 3-9 credits of doctoral thesis preparation.

The program of study is intended to train clinicians who will demonstrate competency:

- in oral, written and other forms of communication
- in scientific and research foundations of practice
- in prevention and identification of communication disorders
- in evaluation and treatment of disorders of auditory, balance, communication and related systems
- by passing the examination required for national certification in audiology
- by passing department assessments of clinical competency

The Department of Communication Sciences and Disorders faculty recognizes a special responsibility to the profession to ensure that graduates of the doctoral degree program demonstrate attitudes and behaviors consistent with the standards of the profession. In keeping with this responsibility, faculty members may recommend to the program director that a student should be disciplined (including dismissal) for exhibiting behavior deemed to be inconsistent with the standards of the profession. Nonprofessional behaviors include dishonesty, unethical conduct, deficient professional/clinical skills, or other behaviors construed by the faculty as counterproductive to the field. A faculty committee consisting of the

program director and the appropriate graduate faculty will make recommendations for disciplinary action. The recommendation for disciplinary action will be reviewed and acted upon by the faculty of the department and forwarded to the dean of the College of Graduate Education and Research. The student has the right to due process.

## Admission Requirements

- Bachelor's degree with a minimum GPA of 3.00, GRE scores and three letters of recommendation. All GPA calculations for admission are based upon the last 60 credits of undergraduate and post-baccalaureate study.
- A one-two page personal statement answering the following question: "Is there a place for clinically based research in an Au.D. program?"

- For international students a TOEFL score of 600 or above is required.

- Successful completion of the following courses:

Introduction to Biology (3-4)\*

Behavioral Statistics (3-4)

Introduction to Psychology (3)

Speech and Language Development (3)

Phonetics (3)

Hearing Science OR Hearing and Speech Science (3)

Anatomy and Physiology of the Auditory and Vocal Mechanism (3)

Phonology (3)

Language (3)

Introduction to Audiology (3)

Basic Mathematics (3)

Chemistry (3-4)\*

Physics (3-4)\*

\*One of the basic science courses must include a lab.

## Degree Requirements

All course work, examinations, writing, and clinic practicum clock hour requirements of the Department of Communication Sciences and Disorders must be completed, and students must demonstrate mastery in four areas of audiology: foundations of practice;

prevention and identification; evaluation and treatment as specified by the American Speech-Language-Hearing Association (ASHA) before the Au.D. degree is awarded.

## Research Project

Each student will complete an Audiology Doctoral Thesis. This project could be an extensive case study or a research project. Projects will be presented to the CSD faculty in written and oral form for their evaluation.

## Required Courses

ACSD 601	Introduction to Clinical Practicum (1)
ACSD 603	Neuroanatomy and Physiology of the Peripheral Auditory and Vestibular Systems (3)
ACSD 604	Neuroanatomy and Physiology of the Central Auditory and Vestibular Systems (3)
ACSD 611	Acoustics and Psychoacoustics (2)
ACSD 621	Auditory Diagnostics I (3)
ACSD 645	Aural Rehabilitation and Gerontology (3)
ACSD 655	Hearing Aids I (3)
ACSD 690	Audiology Clinic On Campus I (3)
ACSD 721	Auditory Diagnostics II (3)
ACSD 731	Calibration and Instrumentation (3)
ACSD 743	Electrophysiologic Evaluation of the Peripheral Auditory System (3)
ACSD 744	Electrophysiologic Evaluation of the Central Auditory Nervous System (3)
ACSD 745	Audiology Clinic On Campus II (3)
ACSD 746	Audiology Clinic On Campus III (3)
ACSD 747	Audiology Clinic Off Campus I (3)
ACSD 748	Audiology Clinic Off Campus II (3)
ACSD 751	Hearing Conservation (3)
ACSD 753	Pediatrics and Educational Audiology (3)

ACSD 755	Hearing Aids II (3)
ACSD 756	Cerumen Management (1)
ACSD 843	Vestibular Assessment and Rehabilitation (2)
ACSD 844	Tinnitus (1)
ACSD 847	Audiology Clinic Off Campus III (3)
ACSD 848	Audiology Clinic Off Campus IV (3)
ACSD 853	Cochlear Implants (3)
ACSD 855	Hearing Aids III (3)
ACSD 998	Audiology Residency (12-18) (48 weeks)
IDHP 647	Health Care Financial Management (3)
NURS 543	Pharmacotherapeutic Agents (2)
PSYC 605	Counseling (3)
SPPA 705	Professional Issues in Speech-Language Pathology and Audiology (2)
SPPA 713	Research Methods (3)

## Electives

*Must take one course*

IDHP 600	Health Care Professionals in a Changing Environment (3)
IDHP 605	Managing Health Care Professionals (3)
IDHP 651	Planning and Marketing Health (3)
IDHP 741	Legal and Ethical Issues in Healthcare (3)
OCTH 604	Academic and Clinical Education (3)
PSYC 661	Foundations of Rehabilitation Counseling (3)
PSYC 667	Psychosocial Aspects of Disability (3)

## SPEECH-LANGUAGE PATHOLOGY

Degree: Master of Science

Program Director: Sharon Glennen

410-704-2449

sglennen@towson.edu

The Speech-Language Pathology program is accredited by the Council on Academic Accreditation (CAA) of the American Speech-

Language-Hearing Association and the Maryland State Department of Education. The program provides the student with 1) study of normal communication processes; 2) an in-depth investigation of communication disorders; 3) development of therapeutic goals, procedures and materials; and 4) extensive clinical experience in on- and off-campus settings. The program is designed to enable preprofessionals in the field, i.e., those with a bachelor's degree or the equivalent in speech-language pathology and audiology, to meet the academic and clinical practicum requirements of national and state accrediting, certifying and licensing bodies.

The degree will prepare the individual for national/state certification and state licensure for employment in public school, clinical or hospital settings, or private practice and to pursue advanced degrees. All clinical practicum clock-hour requirements of the American Speech-Language-Hearing Association (ASHA) and the Department of Communication Sciences and Disorders must be completed before the M.S. degree is awarded.

Academic courses are offered in the late afternoons and evenings and clinical practica are provided during the day in the fall and spring semesters. There are some opportunities for clinical practicum experiences and academic course work during the summer sessions.

The Department of Communication Sciences and Disorders faculty recognizes a special responsibility to the profession to ensure that graduates of master's degree programs demonstrate attitudes and behaviors consistent with the standards of the profession. In keeping with this responsibility, faculty members may recommend to the program director that a student should be disciplined (including dismissal) for exhibiting behavior deemed to be inconsistent with the standards of the profession. Nonprofessional behaviors include dishonesty, unethical conduct, deficient professional/clinical skills, or other behaviors construed by the faculty as counterproductive to the field. Recommendations for disciplinary action will be made by a faculty committee consisting of the program director and the appropriate graduate faculty. The

recommendation for disciplinary action will be reviewed and acted upon by the faculty of the department and forwarded to the dean of the College of Graduate Education and Research. The student has the right to due process.

### Admission Requirements

- Bachelor's degree in speech-language pathology and audiology with a minimum of 33 credits or 42 quarter hours and a minimum GPA of 3.00 in the major, three letters of recommendation from persons familiar with the applicant's potential for scholarly and/or clinical work, and a 1-page personal essay. OR
- Students without a bachelor's degree in speech-language pathology and audiology have two options for entering the program (see below).
- The Three-Year Graduate Program is designed for full-time students without a degree in speech language pathology and audiology. Admission requirements include a Bachelor's degree from an accredited college or university with a minimum GPA of 3.7 for the last 60 credits of undergraduate and post-baccalaureate study, GRE scores, three letters of recommendation from persons familiar with the applicant's potential for scholarly and/or clinical work, and a 1-page personal essay. OR
- Students who do not have a Bachelor's degree in speech language pathology and audiology and do not meet the admissions requirements for the Three-Year Graduate Program must complete undergraduate course work in speech language pathology and audiology before applying to the Graduate School. A minimum of 30 credits including the following courses or their equivalents is required with a minimum GPA of 3.00 in the major, three letters of recommendation from persons familiar with the applicant's potential for scholarly and/or clinical work, and a 1-page personal essay. Students interested in completing undergraduate course work at Towson University should contact the department main office and ask for information about the Second Bachelor's Degree program.

SPPA 200	Anatomy and Physiology of the Auditory and Vocal Mechanism (3)
SPPA 210	Phonetics of American English (3)
SPPA 215	Speech and Language Development (3)
SPPA 302	Speech Pathology I: Phonology (3)
SPPA 303	Hearing Science (3)
SPPA 304	Speech Pathology II: Language (3)
SPPA 313	Speech Science (3)
SPPA 321	Introduction to Audiology (3)
SPPA 325	Introduction to Aural Rehabilitation (3)
SPPA 416	Clinical Observations and Techniques (3)

- The American Speech-Language Hearing Association's minimum requirements for application for the Certificate of Clinical Competence includes transcript credits for course work, CLEP or advanced placement examination credits in each of the following areas: biological sciences, physical sciences, social/behavioral sciences, and mathematics. In addition to transcript credit, applicants may be required to provide further evidence of meeting these requirements. A behavioral statistics course, or it's equivalent, fulfills the math requirement and is highly recommended. Students without these courses will have to take them as part of their graduate program.
- Speech-language pathologists must have sufficient proficiency in the English language to meet certification standards of the American Speech-Language-Hearing Association. For international students and students whose first language is not English, a TOEFL score of 600 or above is required (250 on the computer version of the TOEFL). In addition, an interview with the graduate program director is required.
- Students are admitted for the fall semester only. Completed application and admission credentials must meet the deadline of January 15.

## Degree Requirements

### Speech-Language Pathology Courses (49 credits)

SPPA 600	Language Development and Disorders from Birth through Preschool (3)
SPPA 604	Neurologically Based Language Disorders (3)
SPPA 606	Language Development and Disorders in School-Age Children (3)
SPPA 610	Phonology and Articulation (3)
SPPA 614	Fluency Disorders (3)
SPPA 620	Voice Disorders in Children and Adults (3)
SPPA 622	Diagnostic Process in Speech-Language Pathology (3)
SPPA 626	Neurologically Based Speech Disorders (3)
SPPA 628	Dysphagia (3)
SPPA 690	Clinical Practicum – On Campus (3)
SPPA 705	Professional Issues in SPPA (2)
SPPA 710	Written Language Development and Disorders (3)
SPPA 713	Seminar: Research Design in SPPA (3)
SPPA 714	Augmentative and Alternative Communication (2)
SPPA 745	Advanced Clinical Practicum – On Campus (3)
SPPA 746	Advanced Clinical Practicum – Off Campus (3)
SPPA 747	Advanced Clinical Practicum – In Schools (3)

### Electives (0 credits required)

SPPA 525	Aural Rehabilitation (3)
SPPA 748	Advanced Pediatric Practicum (3)
SPPA 796	Independent Study in Speech-Language Pathology (1-3)
SPPA 797	Directed Readings in Speech-Language Pathology (1-3)
SPPA 798	Advanced Clinical Practicum Continuum – On Campus (3)
SPPA 799	Clinical Practicum Continuum – Off Campus (3)
SPPA 897	Thesis (6)
SPPA 899	Thesis Continuum (1)

Successful completion of a Graduate Examination is required before graduation. Students may obtain information regarding the Graduate Examination from the program director. Students are encouraged to write a master's thesis or mentored research project paper. Those who select this option do not take the Graduate Examination. Students must demonstrate acceptable writing skills in all clinical and academic work. Students showing weakness in this area may be advised to take a remedial writing experience in addition to their degree work.

### **CLINICIAN-ADMINISTRATOR TRANSITION (CAT) CERTIFICATE**

College of Health Professions  
410-704-2132

The graduate Clinician-Administrator Transition Certificate is designed for health care professionals interested in developing administrative skills. The program combines the practical application of administrative theory to clinical health care settings with a user-friendly orientation to multiple technology-based resources. Upon completion of the program, students will possess the knowledge and skills necessary to provide excellence in leadership and day-to-day management in the delivery of health care services.

Individuals enrolled in this 15-credit certificate will be able to apply credits from this program to master's degree programs in Nursing, Occupational Therapy, or Health Science if accepted into those programs.

### **Admission Requirements**

Applicants must meet the general requirements for graduate study outlined in the Towson University *Graduate Catalog*. Additional requirements include:

- Licensure, eligibility for licensure, or certification in a clinical area.
- Bachelor's or master's degree in a clinical field (occupational therapy, physical therapy, respiratory therapy, etc.)
- GPA of at least 3.00 for full admission and 2.75 for conditional admission may be granted. All GPA calculations for admission

are based upon the last 60 credits of undergraduate and post-baccalaureate study.

Once all materials are received and evaluated, applicants will be notified regarding acceptance to the program. Students may be admitted at any time during the year. For information regarding the Clinician-Administrator Transition certificate, please contact:

College of Health Professions  
410-704-2132

### **Required Courses**

IDHP 600 Transitions: Health Professionals in a Changing Environment (3)

IDHP 605 Managing Health Care Professionals (3)

\*IDHP 610 Administration of Health Care Organizations (3)

\*This class is the capstone for the CAT program, taken after all others.

IDHP 647 Health Care Financial Management (3)

IDHP 651 Strategic Planning and Marketing in Health Care (3)

### **HEALTH SCIENCE**

Degree: Master of Science  
Program Director: Susan Radius  
410-704-4216  
sradius@towson.edu

The master's program in Health Science is designed to meet needs within the state of Maryland for graduate-trained health professionals to work in educational, medical care, community and work-site settings. The program is intended for people with classroom or work experience in the health sciences or related fields. It is particularly well suited to people who have been in the work force and now wish to receive additional education to enhance their performance as well as their competitiveness on the job.

Students may select from three concentrations: Community Health Education, School Health Education or Administration.



A graduate of the Community Health Education Concentration may pursue a career as a health education specialist in a variety of public and private sector agencies. Students holding current credentials in pharmacy, nursing, dentistry, dietetics and other professions may wish to combine their skills from prior training, and redirect their careers toward community health education related to their specific prior training. A graduate of the School Health Education Concentration can consider such employment opportunities as classroom health teacher, supervisor of a health science program within a school system, health education media specialist, program evaluation specialist, or a position within continuing education and school personnel departments. A graduate of the Administration Concentration is prepared for positions in a variety of settings (voluntary, proprietary, governmental, school, community, etc.) that require sound backgrounds in health and administration.

The distinctiveness of the master's program in Health Science is its emphasis in pragmatic applications derived from theory. The program is based on the core approach of providing a sound academic base in principles of education and training, research and behavioral sciences. While students register for graduate work within the Department of Health Science, support cores from this or other university departments can be selected to contribute toward their individual professional goals. In addition, with permission of the program director, students may transfer up to 9 graduate credits earned in other academic settings to their master's program of study.

Students may elect to pursue a graduate project or thesis, if either activity is consistent with their professional goals.

The master's program in Health Science is designed to accommodate the needs of students whose personal and professional lives restrict their ability to enroll in a full-time, traditional graduate program. Students are overwhelmingly part-time, participating in courses that are offered only during weekday evenings throughout the year. Individuals desiring full-time graduate status may be able to construct

programs responsive to their needs. However, the department cannot promise that full-time course work will be possible within any given semester or academic year.

### **Admission Requirements**

Admission to the master's program in Health Science requires an undergraduate degree in a health science field (e.g., nursing, health education, psychology, etc.) or substantial upper-division course work in those fields, or experience in those same areas (as determined by the program director). In addition, applicants must maintain a minimum GPA of 3.00 to be admitted to the master's program; conditional admission may be granted to students whose GPA is at least 2.75. All GPA calculations for admission are based upon the last 60 credits of undergraduate and post-baccalaureate study.

### **Degree Requirements**

The master's program in Health Science requires successful completion of 36 credits. For students in School Health Education, 18 credits are identified for the student by the Department of Health Science, with the remainder derived from elective offerings; in Community Health Education, 18 credits are stipulated by the department; and for those enrolled in the Administration Concentration, 15 credits constitute mandatory enrollment. In addition, all students must complete a three-course requirement (for School and Community Health Education: HLTH 639, 615 and a third course selected with advisement; for Administration: HLTH 633, 615 and a third course selected with advisement) with a GPA of 3.00 in their first attempt at these courses. Students who earn one C among those three courses must register for and receive no less than a B in HLTH 691 to remain in the Health Science master's program; this course will not be included in the 36 credits necessary to complete the program.

**School Health Education****Health Science Required Core  
(18 credits)**

- HLTH 601 Contemporary Issues in School Health (3)  
 HLTH 615 Community Health: Qualitative and Quantitative Elements (3)  
 HLTH 625 Research Methods in Health (3)  
 HLTH 639 Introduction to Health Behavior and Health Promotion (3)  
 HLTH 643 Curriculum Development (3)  
 HLTH 785 Graduate Seminar (3)

**Content Health Core Electives  
(12 credits)**

- HLTH 501 Teaching about Drugs and Sex (3)  
 HLTH 505 Drugs in Our Culture (3)  
 HLTH 551 Ecological Aspects of Health (3)  
 HLTH 637 Leadership Skills (3)  
 HLTH 649 Program Evaluation (3)  
 or

\*other HLTH/HCMN electives, or those approved by the program director

**Elective Health Core (6 credits)**

- HLTH 880 Graduate Project in Health Science (3)  
 HLTH 897 Master's Thesis in Health (6)  
 or

\*other HLTH/HCMN electives, or those approved by the program director

**Community Health Education****Health Science Required Core  
(18 credits)**

- HLTH 615 Community Health: Qualitative and Quantitative Elements (3)  
 HLTH 625 Research Methods in Health (3)  
 HLTH 631 Program Planning in Health Education (3)

- HLTH 639 Introduction to Health Behavior and Health Promotion (3)  
 HLTH 649 Program Evaluation (3)  
 HLTH 785 Graduate Seminar (3)

**Content Health Core Electives  
(6 credits)**

- HLTH 601 Contemporary Issues in School Health (3)  
 HLTH 617 Health Administration (3)  
 HLTH 633 Health Care Systems (3)  
 HLTH 637 Leadership Skills (3)  
 HLTH 645 Health Care Policy (3)  
 HLTH 651/  
 IDHP 651 Planning and Marketing Health in Business and Industry (3)  
 or

\*other HLTH/HCMN electives, or those approved by the program director

**Support Core (12 credits)**

- HLTH 880 Graduate Project in Health Science (3)  
 HLTH 897 Master's Thesis in Health (6)  
 or

\*other HLTH/HCMN electives, or those approved by the program director

**Administration****Health Science Required Core  
(15 credits)**

- HLTH 615 Community Health: Qualitative and Quantitative Elements (3)  
 HLTH 617 Health Administration (3)  
 HLTH 625 Research Methods in Health (3)  
 HLTH 633 Health Care Systems (3)  
 HLTH 785 Graduate Seminar (3)

**Content Support Health Core  
Electives (21 credits)**

- HLTH 631 Program Planning in Health Education (3)  
 HLTH 639 Introduction to Health Behavior and Health Promotion (3)  
 HLTH 645 Health Care Policy (3)

HLTH 647/ IDHP 647	Health Care Financial Management (3)
HLTH 649 HLTH 651/ IDHP 651	Program Evaluation (3)
HLTH 880	Planning and Marketing Health in Business and Industry (3)
HLTH 897	Graduate Project in Health Science (3)
	Master's Thesis in Health (6) or

\*other HLTH/HCMN electives, or those approved by the program director

All students must complete a three-course requirement (determined by their concentration) with a grade point average of 3.00 in the first attempt at these courses. Students who attain a 3.00 in the courses, but who earn a C in one of the courses must register for HLTH 691 Directed Readings, with a health science faculty member in the area in which the C grade was earned. The grade of B or higher in HLTH 691 must be earned. Students who do not earn a 3.00 or higher in the three required courses or who earn less than a B in HLTH 691 are academically dismissed from the program.

## NURSING

Degree: Master of Science

Program Director: Deborah Greener

410-704-4203

dgreener@towson.edu

The Master of Science degree program in Nursing is designed to prepare graduates to assume key roles in the delivery of health care to individuals and families within a community-based nursing practice. Options are available in education or administrative roles.

A community-based nurse is a nurse who brings special knowledge of health promotion, prevention and coordination of multiple systems and services to his or her practice in a setting in the community. An individual and family-centered orientation, the development of partnerships with clients, and an appreciation of the values of the community characterize community-based nursing. Community settings are not limited and specialization can focus on

specific population groups. This degree is not a specialty in nursing, but a philosophy that guides care in all nursing specialties. It does not prepare a nurse to sit for advanced practice certification, but does include clinical content.

All students are required to complete the Graduate Nursing Core. In addition, each student will select a concentration for further study: Advanced Clinician; Nursing Education; or Clinician-Administrator Transition (CAT). Students may elect to pursue a graduate project or thesis, if either activity is consistent with their professional goals.

The master's program is designed for the student who has a bachelor's degree with a major in Nursing and is licensed as a Registered Nurse (RN), or eligible, in the state of Maryland. The program also serves the needs of the part-time student. Most courses are offered on weekday evenings; however, other options may be developed according to student interest. Practicum experiences will be planned with appropriate agencies using a time frame congruent with the goals of the experience and preceptor assignments. Once the program is fully implemented, individuals desiring full-time graduate status may be able to construct programs responsive to their needs.

## Admission Requirements

Applicants to the Master of Science program must meet the general requirements for graduate study established by the Department of Nursing and as outlined in the Towson University *Graduate Catalog*. Specifically, they must have:

- A baccalaureate degree with a major in Nursing.
- A minimum GPA of 3.00 for full admission or a minimum GPA of 2.75 for conditional admission.

Applicants whose credentials do not meet the stated criteria for admission and believe their situation warrants special consideration are encouraged to contact the department for information related to its individual review policy.

- A one-page personal statement in which the applicant discusses his or her reasons for seeking admission to the program and how

the program will meet the applicant's professional goals.

- A current curriculum vita.
- A photocopy of a current license to practice nursing in at least one state in the U.S. Prior to any clinical practice course, the student must be licensed as a Registered Nurse (RN) in the state of Maryland.
- Satisfactory completion of an elementary statistics and/or nursing research course.
- Completion of an approved physical assessment course.

### Degree Requirements

The master's program in Nursing requires successful completion of a minimum of 36 credits. Fifteen of these credits will be determined by the concentration the student selects. All students will complete the Graduate Nursing Core.

### Graduate Nursing Core (21-27 credits)

IDHP 600	Transitions: Health Professionals in a Changing Environment (3)
IDHP 741	Ethical and Legal Issues in Clinical Practice (3)
NURS 601	Theoretical Foundations of Nursing Practice (3)
NURS 603	Nursing Research (3)
NURS 605	Nursing in Health Care Systems (3)
NURS 700	Community-Based Nursing (3)
NURS 800	Advanced Community-Based Nursing Practice (3-6)
NURS 851	Nursing Master's Thesis (6) (Optional)

### Concentration A: Advanced Clinician (12 credits + 3 additional credits of NURS 800)

Students with special interests or needs can plan a unique master's program with their adviser and approval of the program director. Students will select three electives from courses available in nursing or in other departments. In addition, students will be required to take the following courses:

NURS 801	Clinical Practicum in Community-based Nursing (3)
NURS 812	Seminar in Community-based Nursing (3)

### Concentration B: Nursing Education (15 credits)

Students who desire to teach in a nursing school or work in staff development and education in a health care agency will complete the following courses. With the addition of IDHP 600, these courses constitute the requirements for a Certificate in Nursing Education (18 credits). The certificate option may be selected alone, or serve as a component of the master's program.

NURS 610	Curriculum Development in Nursing (3)
NURS 612	Teaching and Learning in Nursing (3)
NURS 710	Evaluation in Nursing Education (3)
NURS 712	The Adult Learner (3)
NURS 810	Teaching Practicum (3)

### Concentration C: Clinician-Administrator Transition (CAT) (15 credits)

Students desiring to emphasize administration can complete the CAT certificate program, including the following courses and one 3-credit elective approved by the program director (15 credits):

IDHP 605	Managing Health Care Professionals (3)
IDHP 610	Administration of Health Care Organizations (3)
IDHP 647	Health Care Financial Management (3)
IDHP 651	Planning and Marketing Health in Business and Industry (3)

This is also an interdisciplinary graduate certificate program offered by the College of Health Professions.

### Optional Thesis (3-6)

Note: The 800 level courses are capstone courses, thus students in each concentration have a capstone experience.

## NURSING EDUCATION CERTIFICATE

The overarching objective of the certificate is that students completing the program develop teaching and evaluation skills through a series of courses designed to facilitate the transition of a clinician to an educator in an academic or health care setting. It is an independent certificate program; however, students in the Nursing Education Certificate program will study with students selecting the Master of Science in Nursing program, Concentration B: Nursing Education. Upon completion of this 18-credit program, students may wish to pursue additional graduate study and apply these credits to the M.S. degree.

### Admission Requirements

Requirements for the certificate program are the same as those listed above for the M.S. in Nursing program.

### Certificate Requirements

#### Required Courses (18 credits)

IDHP 600	Health Care Professionals in a Changing Environment (3)
NURS 610	Curriculum Development in Nursing (3)
NURS 612	Teaching and Learning in Nursing (3)
NURS 710	Evaluation in Nursing Education (3)
NURS 712	The Adult Learner (3)
NURS 810	Teaching Practicum (3)

## OCCUPATIONAL SCIENCE

Degree: Doctor of Occupational Science (Sc.D.)

Program Director: S. Maggie Reitz

410-704-2762

mreitz@towson.edu

The applied doctoral degree in Occupational Science prepares certified occupational therapists to teach, influence policy, and engage in applied research. Occupational science is the scientific study of human occupation related to the purposeful and meaningful activities that comprise everyday life experi-

ences. The study of occupation involves the investigation of the relationship between humans' occupations and their health. This unique social science examines the capacity of humans to engage in occupation and develop healthy adaptive skills. The main emphasis of this doctoral program is to enhance the health of society by applying knowledge gained through the advanced study of occupational science and human behavior.

The doctoral degree requires the completion of at least 90 credits beyond a bachelor's degree. Students who hold master's degrees in disciplines other than occupational therapy will be allowed to transfer a maximum of 30 credits from their master's degrees; students who hold master's degrees in Occupational Therapy may transfer a maximum of 36 credits from their master's degrees.

### Admission Requirements

- A master's degree from an accredited college or university with an overall GPA of 3.25 in graduate course work. Students are eligible to request conditional admission with an overall GPA of 3.00.
- A degree or certificate in Occupational Therapy from a professional occupational therapy program accredited by the Accreditation Council for Occupational Therapy Education or by the World Federation of Occupational Therapists.
- Proof of completion of prerequisite course work.
- Graduate Record Examination (minimum 900 combined math and verbal score) or Miller Analogies Test (minimum 50th percentile).
- Eligibility for licensure to practice occupational therapy in Maryland.
- Three letters of recommendation.
- Letter of intent describing professional goals in seeking the degree and area(s) of interest/specialization.
- Interview by the doctoral admissions committee.
- International students must have TOEFL scores of at least 600.

### Prerequisite Courses

- OCTH 613 Advanced Research Methods in Occupation-Based Practice (3)  
(or equivalent)
- PSYC 687 Advanced Experimental Design I (3)

### General Requirements

1. The doctoral degree will require the completion of 90 credits beyond a bachelor's degree; students who hold a master's degree in a discipline other than occupational therapy will be allowed to transfer a maximum of 30 credits from their master's degree, students who hold a master's degree in occupational therapy may transfer a maximum of 36 credits from their master's degree.
2. A program of study with a concentration in an aspect of occupation will be developed by the student in consultation with his/her adviser. This program of study is to include all planned electives. A minimum of two electives must be at the 700 level. One elective must be an additional quantitative statistics course and another must be an additional education course.
3. Evidence of prior research experience is required. Applicants who do not have appropriate experience may be expected to take master's level research coursework before beginning the doctoral program research sequence.
4. Students must register for at least one academic semester of full-time dissertation research (9 credits).
5. The program, including coursework and dissertation, must be completed within ten years.
6. The doctoral degree will require the passing of a comprehensive examination after completing all coursework. After successful completion, students will be "advanced to candidacy."
7. The doctoral degree will require successful defense of a dissertation proposal.
8. The doctoral degree will require successful defense of a dissertation (minimum of 12 credits), involving applied research in occupational science.

### Course and Degree Requirements

For the most recent course and degree requirements, visit the Department of Occupational Therapy and Occupational Science Web site at [www.towson.edu/OT](http://www.towson.edu/OT).

- OCTH 603 Issues in Occupational Therapy (3)
- OCTH 604 Academic and Clinical Education (3)
- OCTH 611 Advanced Theory and Philosophy of Occupation (3)
- OSC 742 Origins and Evolution of Occupational Science (3)
- OSC 744 Occupation and Human Life (3)
- OSC 746 Occupation and Quality of Life in Communities and Systems (3)
- OSC 890 Qualitative Research: Occupation and Life Narrative (3)
- IDHP 741 Ethical and Legal Issues in Clinical Practice (3)

### FAMILY STUDIES CERTIFICATE

Students interested in enhancing their knowledge of family-related issues might consider pursuing the post-baccalaureate Certificate in Family Studies as they complete their doctoral degree. For more information, see the description of this graduate program in the Interdisciplinary Programs section of this catalog.

### OCCUPATIONAL THERAPY

Degree: Master of Science  
Program Director: Sonia Lawson (Professional Master's Degree Program)  
410-704-2313  
[slawson@towson.edu](mailto:slawson@towson.edu)

Program Director:  
S. Maggie Reitz (Post-Professional Master's Degree Program)  
410-704-3499  
[mreitz@towson.edu](mailto:mreitz@towson.edu)

The Master of Science in Occupational Therapy program is designed to prepare graduates to assume key roles in clinical practice,

research, education or administration. Occupational therapists' responsibilities in these roles are to assure high quality services for client groups and to advance the practice of occupational therapy.

Incoming students must select one of two options, depending on whether or not they are already certified occupational therapists. In the Post-Professional Master's Degree Program for (certified occupational therapists), students may specialize in pediatrics, gerontology, administration/supervision, education or other approved topic. In the professional Master's Degree Program (for non-occupational therapists), students may specialize in either pediatrics or gerontology. The option for non-occupational therapists is offered in both a traditional weekday and in a weekend format. The weekend program admits students every other year.

Towson University also offers a Combined B.S./M.S. degree program in Occupational Therapy. For more information about this program, see the *Undergraduate Catalog* or contact the Admissions Coordinator.

NOTE: All applicants for the Master's Degree programs in Occupational Therapy must complete an application for the program in addition to the Graduate School application. Contact the College of Health Professions Admissions Coordinator at 410-704-4170 for an application packet.

## Professional Master's Degree Program

### Program Accreditation

Towson University's Professional Master's Degree Program is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA) located at 4720 Montgomery Lane, P.O. Box 31220, Bethesda, MD 20824-1220. AOTA's phone number is 301-652-AOTA. Graduates of the program are able to sit for the national certification examination for the occupational therapist, registered by the National Board for Certification of Occupational Therapy

(NBCOT). After successful completion of this examination, the individual will be an occupational therapist, registered (OTR). Most states require a license to practice; however, most licenses are based on the results of the NBCOT certification examination. (Persons convicted of felonies may be unable to sit for the Certification Examination and should inquire in advance of program entry regarding eligibility.)

### Admission Requirements

- Possess a bachelor's degree with a minimum GPA of 3.00 for full admission or a 2.50 GPA for conditional admission. All GPA calculations for admission are based upon the last 60 credits of undergraduate and post-baccalaureate study.
- Complete the following eight admission prescreening courses with a minimum grade of C:
  1. English Composition
  2. Introductory Sociology
  3. Introductory Psychology
  4. Abnormal Psychology
  5. Basic Statistics
  6. Human Anatomy and Physiology I with lab
  7. Human Anatomy and Physiology II with lab
  8. Physics (including mechanics and a lab)
- Submit the following items directly to the admissions coordinator:
  1. Three Reference Forms.
  2. Graduate occupational therapy admission essay.
- Complete and verify at least 30 hours of human service activity. (The department's form must be used.) This work or volunteer experience must have involved direct contact with people with disabilities, and/or illness, and/or other disadvantages. Examples include work/volunteer experience in hospitals, nursing homes, rehabilitation facilities, senior centers, drug rehabilitation programs, programs for the homeless, camps and/or attendant care for a child, an adolescent or an adult. The following experiences do not satisfy this requirement: babysitting with children who do not have disabilities

and administrative clerical work. All 30 hours of human service activity must have been completed within two years of the application deadline. The 30 hours must have been completed in no more than three different settings, and the applicant must have been in each setting for at least 10 hours.

For more information regarding admission prerequisite courses and other aspects of the application process, contact:

CHP Admissions Coordinator  
Towson University  
8000 York Rd.  
Towson, MD 21252-0001  
410-704-4170

### Early Admission Option for Professional Master's Degree Program

Students are eligible for early admission to the Professional Master's Degree Program if they have:

- a 3.60 GPA (based on the last 60 credits of undergraduate course work)
- completed all except two of the pre-screening course requirements (all completed with a C or better)
- completed the human service activity, essay and three reference forms

Early admission is offered on a limited basis and guarantees the student a place in the next upcoming class. Students interested in this option should contact the College of Health Professions admissions coordinator or the department's professional education program director.

### Degree Requirements

The Professional Master's Degree Program consists of 59 credits of master's degree prerequisite courses and 39 credits of required and elective graduate courses with or without a thesis (a total of 98 credits of course work). The master's degree prerequisites (59 credits) can be completed in five semesters in a traditional weekday format, or in eight semesters of

study in the weekend format. All students complete two three-month, full-time internships (Level II Fieldwork\*) where they apply the theoretical knowledge and skills appropriate to an entry-level qualified professional occupational therapist. Most sites for each three-month internship are in the mid-Atlantic area, but arrangements also can be made in other locations if openings are available.

\*All Level II Fieldwork must be completed within 24 months of completion of academic course preparation.

### Academic Standards for Professional Master's Degree Prerequisite Courses

- Students must maintain a minimum GPA of 3.00 during the semesters in which they are taking master's degree prerequisite courses.
- Students may receive a maximum of four 2.00 grades during their master's degree prerequisite course work.
- Students may repeat a maximum of four courses during their master's degree prerequisite course work.
- Students may repeat the same course only once.
- Students may repeat a maximum of one Level II Fieldwork experience.
- Students must have a GPA of 3.00 in master's degree prerequisite course work to be eligible to enroll in OCTH 435 Occupational Therapy Internship I.
- Students must have a GPA of 3.00 in master's degree prerequisite course work and a grade of S (Satisfactory) in OCTH 435 to be eligible to enroll in graduate course work including electives.

### Master's Degree Prerequisite Courses

BIOL 427	Neuromuscular Mechanisms of the Upper Body (2)
HLTH 207	Health Care in the United States (3)
OCTH 211	Philosophy of Occupational Therapy (3)
OCTH 213	Small Group Dynamics (3)
OCTH 216	Life Span Adaptations (4)
OCTH 217	Analysis of Occupational Performance I (4)



- OCTH 218 Analysis of Occupational Performance II (3)  
 OCTH 221 Clinical Kinesiology (3)  
 OCTH 313 Physical Dysfunction: Neurological Conditions (3)  
 OCTH 314 Psychosocial Dysfunction (4)  
 OCTH 317 Physical Dysfunction: Musculoskeletal Conditions (3)  
 OCTH 319 Physical Dysfunction Clinical (2)  
 OCTH 320 Psychosocial Dysfunction Clinical (2)  
 OCTH 323 Gerontological Occupational Therapy (3)  
 OCTH 325 Pediatric Occupational Therapy (4)  
 OCTH 326 Pediatric Clinical (2)  
 OCTH 428 Occupational Therapy Organizations in Modern Society (4)  
 OCTH 435 Occupational Therapy Internship I (6)

### Required Graduate Courses

- OCTH 536 OT Internship II (6)  
 OCTH 603 Issues in Occupational Therapy (3)  
 OCTH 611 Advanced Theory and Philosophy of Occupation (3)  
 OCTH 612 Health Promotion Initiatives in the Community: Clinical (3)  
 OCTH 613 Advanced Research Methods in Occupation-Based Practice (3)  
 PSYC 687 Advanced Experimental Design I (3)  
 OCTH 880 Graduate Project (3)  
 or  
 OCTH 897 Graduate Thesis (6)

### Specialization Courses (6 credits)

Students may specialize by taking 6 credits of course work in pediatrics or gerontology.

#### Pediatrics

- OCTH 623 Evaluation in Pediatric Occupational Therapy (3)  
 OCTH 633 Occupational Therapy Treatment in Pediatrics (3)

#### Gerontology

- OCTH 621 Geriatric Rehabilitation (3)  
 OCTH 631 Community Gerontology (3)

### Electives (6-9 credits)

Students who complete the project option will have 9 credits of electives; those students who complete the thesis option will have 6 credits of electives.

Elective courses must consist of the following: one course to complete specialization, one special topics course determined by the department, and one graduate course of the student's choice to be approved by the department.

### FAMILY STUDIES CERTIFICATE

Students interested in enhancing their knowledge of family-related issues might consider pursuing the Post-baccalaureate Certificate in Family Studies as they complete their master's degree. For more information, see the description of this graduate program in the Interdisciplinary Programs section of this catalog.

### Post-Professional Master's Degree Program

#### Admission Requirements

- Discuss program of study with Professional Program Director.
- Possess a bachelor's degree with a minimum 3.00 GPA for full admission or a 2.50 GPA for conditional admission. All GPA calculations for admission are based upon the last 60 credits of undergraduate and post-baccalaureate study.
- Complete an accredited entry-level professional training program in occupational therapy.
- Successfully complete the Certification Examination for Occupational Therapists, Registered.
- Submit the following items directly to the admissions coordinator:
  - Three reference forms.
  - A graduate occupational therapy admission essay.

### Admission Criteria

Certified occupational therapist applicants are screened after the Graduate School receives application materials on an applicant-by-applicant basis. These applicants are admitted to the Occupational Therapy graduate program throughout the academic year. Applicants must follow the procedures outlined below.

- Submit application and transcripts to the Graduate School.
- Meet standards for GPA.
- Meet standards for scores on the three reference forms.
- Meet standards for scores on the admission essay.

### Degree Requirements

The Post-professional Master's Degree Program for Certified Occupational Therapists consists of a total of 36 credits of required and elective courses, with or without a thesis.

### Required Graduate Courses

- OCTH 603 Issues in Occupational Therapy (3)
- OCTH 611 Advanced Theory and Philosophy of Occupation (3)
- PSYC 687 Advanced Experimental Design I (3)
- OCTH 613 Advanced Research Methods in Occupation-Based Practice (3)
- OCTH 781 Graduate Seminar in Occupational Therapy (3)
- OCTH 880 Graduate Project in Occupational Therapy (3)
- or
- OCTH 897 Graduate Thesis (6)

### Specialization Courses (6 credits)

Students may specialize by completing 6 credits in pediatrics, gerontology, administration/supervision, education or other approved topic.

### Administration/Supervision

- OCTH 605 Managing Human Resources in Occupational Therapy (3)
- Approved Specialty Course (3)

### Gerontology

- OCTH 621 Geriatric Rehabilitation (3)
- OCTH 631 Community Gerontology (3)

### Pediatrics

- OCTH 623 Evaluation in Pediatric Occupational Therapy (3)
- OCTH 633 Occupational Therapy Treatment in Pediatrics (3)

### Education

- OCTH 604 Academic and Clinical Education (3)
- NURS 712 The Adult Learner (3)

### Electives (9-12 credits)

Students who complete the project option will have 12 credits of electives; those students who complete the thesis option will have 9 credits of electives.

### FAMILY STUDIES CERTIFICATE

Students interested in enhancing their knowledge of family-related issues might consider pursuing the Post-baccalaureate Certificate in Family Studies as they complete their master's degree. For more information, see the description of this graduate program in the Interdisciplinary Programs section of this catalog.

### Combined B.S./M.S. Degree Program in Occupational Therapy

Towson University offers a Combined B.S./M.S. degree program in Occupational Therapy. For more information about the program, see the *Undergraduate Catalog* or contact the Admissions Coordinator, 410-704-4170.

## PHYSICIAN ASSISTANT STUDIES

Degree: Master of Science

Program Director: Stephen N. Collier

410-704-4049

scollier@towson.edu

<http://www.new.towson.edu/chp/pa>

Towson University offers a Master of Science degree program in Physician Assistant Studies that is completed concurrently with completion of a certificate program at the Community College of Baltimore County. The program begins in June of each year and is 26 months in length. In a time-efficient manner, students complete the requirements to sit for the physician assistant certification examination and earn a Master of Science degree in Physician Assistant Studies. The master's degree program prepares the physician assistant to assume increased roles in clinical practice, health care leadership, advocacy for clients, education of others, and clinical research, as well as carrying out the other responsibilities of a physician assistant. Such roles are important for physician assistants in a variety of practice, education and administrative positions.

Students are admitted to both Towson University for the master's program in Physician Assistant Studies and the Community College of Baltimore County for its Physician Assistant professional certificate program. Students will take CCBC and Towson University courses concurrently throughout the entire program. They must complete all program requirements at both institutions to receive the Master of Science degree and to receive the Certificate in Physician Assistant Studies from CCBC. Students may not receive either the master's degree or the certificate without completing all requirements for both. Once all requirements for both the M.S. degree and the certificate are complete, students will be able to sit for the national certification examination.

## Admission Requirements

For the master's degree program, applicants must meet the following requirements for admission to the Graduate School at Towson University, which include:

- A bachelor's degree with a grade point average of 3.00 for full admission, OR
- A bachelor's degree with a grade point average of 2.75 for conditional admission, OR
- A master's degree or doctorate from a regionally accredited college or university
- Acceptance to the Physician Assistant program at CCBC, including completion of a minimum number of documented hours of experience in a health care setting
- Completion of prerequisite courses: Microbiology, Anatomy and Physiology I, Anatomy and Physiology II, Introduction to Organic or Biochemistry, Introduction to Statistical Methods

NOTE: Applicants for this program DO NOT apply directly to Towson University or CCBC, but to the Central Application Service for Physician Assistants (CASPA) at [www.caspaonline.org](http://www.caspaonline.org).

## Degree Requirements

The master's program in Physician Assistant Studies requires successful completion of a minimum of 36 credits from Towson University and 62 credits from CCBC—Essex. A GPA of 3.00 or better overall must be obtained in the graduate courses.

## Required Courses

### CCBC—Essex Courses

PAST 201	Introduction to Medicine (2)
PAST 212	Public Health and Preventative Medicine (2)
PAST 213	Diagnostic Process (4)
PAST 214	Psychosocial Issues I (2)
PAST 216	Psychosocial Issues II (2)
PAST 217	Pathophysiology (3)
PAST 230	Diagnostic Studies I (2)
PAST 231	Diagnostic Studies II (2)
PAST 232	Diagnostic Studies III (2)
PAST 250	Introduction to Clinical Practice (4)
PAST 251	Clinical Practicum I (6)
PAST 252	Clinical Practicum II (12)
PAST 253	Clinical Practicum III (3)
PAST 254	Clinical Practicum IV (11)
PAST 299	Primary Care Preceptorship (5)

# Towson University Courses

PAST 601	Research Methods in PA Practice I (2)
PAST 602	Ethics, Issues, Trends in PA Practice (3)
PAST 603	Medicine I (2)
PAST 604	Medicine II (6)
PAST 605	Medicine III (2)
PAST 606	Pediatrics I (2)
PAST 607	Pediatrics II (2)
PAST 608	Medicine IV (5)
PAST 609	Pharmacology I (2)
PAST 610	Pharmacology II (2)

PAST 711	Research Methods in PA Practice II (1)
PAST 712	Patient Management Seminar I (1)
PAST 713	Patient Management Seminar II (1)
PAST 714	Patient Management Seminar III (1)
PAST 715	Patient Management Seminar IV (2)
PAST 801	Exit Seminar (2)







## THE COLLEGE OF LIBERAL ARTS

Comprising the core disciplines of the university, the College of Liberal Arts offers graduate programs that emphasize the traditional theoretical aspects of the disciplines as well as professional career opportunities and interdisciplinary study. They are designed both for recent graduates and for working professionals wishing to advance in their fields or change careers.

These programs develop the ability of students to analyze and interpret information and opinions objectively, make informed judgments about complex issues, and express themselves clearly and creatively. The curriculum enables graduates to move comfortably in the world of ideas and values and to appreciate the rich diversity of human culture. Small classes ensure personal attention and an emphasis on writing and interactive learning.

Commitment to graduate education is reflected not only in teaching excellence, but also in the scholarly activity of the faculty. Our graduate faculty members are authors of books and articles in their fields and present their research at professional meetings and regional, national and international conferences. They are mentors to their students, who often have the opportunity to engage in collaborative research. Faculty members participate in cooperative ventures within the urban community as well.

The departments, centers and institutes of the college develop creative partnerships with public and private enterprises to ensure that the intellectual resources of Towson University serve the people of the Baltimore metropolitan area.

Rita Duarte Marinho, Dean

### COLLEGE OFFICE

Linthicum Hall, Room 102A

410-704-2128

Fax: 410-704-6392

[www.towson.edu/cla/](http://www.towson.edu/cla/)

### Certificates of Advanced Study (post-master's)

Counseling Psychology

Organizational Change

*(See Interdisciplinary Programs section)*

School Psychology

### Master's Degree Programs

Applied Gerontology

*(See Interdisciplinary Programs section)*

Geography and Environmental Planning

Humanities

Human Resource Development

*(See Interdisciplinary Programs section)*

Liberal and Professional Studies

*(See Interdisciplinary Programs section)*

Professional Writing

Psychology

- Clinical
- Counseling
- Experimental
- School

Social Science

Women's Studies

*(See Interdisciplinary Programs section)*

### Post-baccalaureate Certificate Programs

Applied Gerontology

*(See Interdisciplinary Programs section)*

Family Studies

*(See Interdisciplinary Programs section)*

Management and Leadership Development

*(See Interdisciplinary Programs section)*

Women's Studies

*(See Interdisciplinary Programs section)*

## GEOGRAPHY AND ENVIRONMENTAL PLANNING

Degree: Master of Arts

Program Director: Virginia Thompson

410-704-4371

vthompson@towson.edu

The program prepares graduates for a variety of geographically oriented applied positions in private business and government agencies and for doctoral programs. The program develops a broad knowledge of physical and human geography as well as the ability to analyze and synthesize spatial data and information from a number of fields.

The Master of Arts in Geography and Environmental Planning has two tracks: Track 1: General Geography, and Track 2: Environmental Geography and Planning. Each track has a thesis and non-thesis plan. Students in the Environmental Geography and Planning Track must select at least one-half of their electives from planning or spatial analysis and techniques courses.

### Admission Requirements

- A bachelor's degree with a minimum of 9 credits in geography, with at least a 3.00 average in all geography courses.
- Two letters of recommendation. Use the Recommendation Form found in the Graduate School Application Packet, and send it to the program director.
- A one- to two-page essay discussing career goals and the planned emphasis within the program.
- A minimum undergraduate GPA of 3.00 is required for full admission to the program, and 2.50 is required for conditional admission. All GPA calculations for admission are based upon the last 60 credits of undergraduate and post-baccalaureate study.

### Degree Requirements

- Newly admitted graduate students must take diagnostic examinations to demonstrate their knowledge of basic physical and human geography. Diagnostic exami-

nations are administered during the fall and spring semesters. The examinations are used for advising purposes, and to determine whether students are competent or deficient in their mastery of basic geographical knowledge. Should any deficiencies be noted, a course of study will be prescribed by the graduate studies committee. This course of study must be successfully completed before candidates are approved for graduation.

- Evidence of quantitative competency. Successful completion of GEOG 375/516 Quantitative Methods in Geography, or an approved equivalent, plus at least one other approved course in computer techniques, statistics, or mathematics are assumed to constitute quantitative competency.
- All degree candidates must meet with their academic advisers to file intended programs of study. This should be done prior to, or during, the first semester of course work. The program can be amended in consultation with the adviser.
- All graduate students must complete the following core requirements (12 credits):
  - GEOG 601 Seminar on Geographical Perspective (to be taken the first year of graduate study) (3)
  - GEOG 621 Research Techniques (to be taken the first year of graduate study) (3)
  - One 600-level human geography seminar or course on any of the following topics: regional, economic, urban, hazards, human ecology, or other course approved by the program director.
  - One 600-level physical or environmental geography seminar or course on any of the following topics: advanced physical geography, environmental impacts of land use, water resources, or other course approved by the program director.
- Courses that satisfy the advanced human and physical/environmental requirements do not include planning-oriented and techniques-oriented courses or seminars.



- Graduate students may pursue either a thesis or non-thesis plan of study.

***Plan A: Master of Arts with Thesis  
(minimum 36 credits)***

- Core requirements (12 credits)
- GEOG 898 Thesis (6 credits)
- Planned elective courses (18 credits)

***Plan B: Master of Arts without Thesis  
(minimum 36 credits)***

- Core requirements (12 credits)
- Planned elective courses (24 credits)
- The non-thesis option requires the presentation of a research paper before the graduate faculty or at an approved professional meeting. The paper must be submitted to the graduate committee for approval for presentation. The graduate faculty will judge the quality of both the paper and the presentation, and vote as to whether the student's presentation satisfactorily meets the requirement. If the presentation is judged as unacceptable, the student may re-present the paper at a later date set by the faculty.

## **HUMANITIES**

Degree: Master of Arts

Program Director: H. George Hahn II

410-704-5198

ghahn@towson.edu

The Master of Arts in Humanities provides advanced study in four disciplines of the humanities. The program benefits both teachers and other post-baccalaureate students seeking intellectual fulfillment or professional advancement.

Unlike the traditional master's degree that specializes in just one area, the Master of Arts program in Humanities bridges four disciplines of the liberal arts: philosophy and religious studies, literature, history and rhetoric. It seeks to establish context and connections, linking significant texts with their intellectual and historical backgrounds from the perspectives of the disciplines of the program. Each course in the core engages texts in English from four epochs of Western

civilization: the Ancient, Medieval, Renaissance and Modern.

Housed in the College of Liberal Arts, the program draws on the faculty of the departments of Philosophy and Religious Studies, English, History and Modern Languages. Its structure has three related parts: (I) Core Texts, (II) Contexts and Connections and (III) Thesis or Anthology Options.

### **Admission Requirements**

- A baccalaureate degree
- Grade point average of 3.00 (last 60 undergraduate credits)
- A statement of intent (500 words)
- Two letters of recommendation

### **Transfer Credits**

With the approval of the program director, students may apply 6 transfer credit hours with the grade of B or better to the elective requirements of the program only.

### **Degree Requirements**

The Master of Arts in Humanities requires completion of a 36-credit program of study: 18 credits of a core curriculum, 12 credits of elective study and 6 credits of thesis or course options.

### **Core Requirements (18 credits)**

Students must complete six 3-credit courses from the following core areas: the Humanities and Philosophical Inquiry HUMA 616-630 (one course); the Humanities and Historical Inquiry HUMA 631-645 (two courses); the Humanities and Comparative Literary Inquiry HUMA 601-615 (two courses); and the Humanities and the Rhetorical Tradition WRIT 611 (one course).

### **Electives (12 credits)**

Students may take courses from approved offerings in the four participating departments (English, History, Modern Languages, Philosophy and Religious Studies) and, with permission of the program director, from two approved courses in theater, music, or art history in the College of Fine Arts and Communication.

### Thesis or Anthology Options (6 credits)

Students will select one of these options:

- Thesis and defense  
*or*
- Two approved courses from the home departments and presentation of a bound anthology of revised major seminar papers after consultation with a mentor

### PROFESSIONAL WRITING

Degree: Master of Science

Program Director: Geofffrey Becker

410-704-5196

gbecker@towson.edu

The program provides advanced study in the theory of writing, writing techniques and style, principles/techniques of editing, and the functions of written communication within the professional/occupational setting. The program centers on 1) developing the communication skills of people seeking to enter or to advance in occupations requiring extensive written analysis and reporting of data and 2) improving written communication and its management in professional organizations.

The program features two concentrations. Writing for the Public and Private Sectors provides experience in writing for a wide range of occupations. Writing in the Professions offers tracks in health professions, teaching writing, journalistic writing, scientific writing or creative writing.

### Admission Requirements

- A 3.00 is required for full admission, and 2.50 for conditional admission. All GPA calculations for admission are based upon the last 60 credits of undergraduate and post-baccalaureate study.
- Two letters of recommendation, preferably letters that speak to writing experience and capability. Use the Recommendation Form found in the Graduate School Application Packet, and send it to the program director.

- Writing sample on a designated topic. Information on the writing sample and topic should be obtained from the Department of English and submitted to the program director.
- Based upon the applicant's undergraduate transcript and upon the writing sample, the department reserves the right to require two specified preparatory undergraduate writing courses, passed with the grade of B or higher in each course, for admission.

NOTE: Upon admission to the program, the student must meet with the assigned adviser to plan a program of study.

### Degree Requirements

#### Required Core (18 credits)

- |          |  |
|----------|--|
| PRWR 611 | Rhetoric: The Pursuit of Eloquence (3)     |
| PRWR 612 | Rhetorical Grammar (3)                     |
| PRWR 613 | Theory of Exposition (3)                   |
| PRWR 615 | History and Development of Prose Style (3) |
| PRWR 617 | Editing (3)                                |
| PRWR 797 | Internship in Professional Writing (3)     |

### Portfolio

Satisfactory completion of a written master's degree portfolio. The portfolio must be submitted between completion of 12 to 18 credits of degree work, and may be resubmitted once. A second failure results in dismissal from the program.

#### Elective Core (18 credits)

In addition to the required core, each student completes an 18-hour elective program from Writing for the Public and Private Sectors or Writing in the Professions. Each concentration has a thesis and non-thesis option.

## Writing for the Public and Private Sectors Concentration

### Thesis Option

PRWR 897 Thesis (6)  
and 12 credits of electives from the following courses:

- PRWR 619 Communication in the Profit/Nonprofit Sectors (3)
- PRWR 621 Business Writing (3)
- PRWR 623 Technical and Scientific Writing (3)
- PRWR 625 Design, Layout and Production (3)
- PRWR 627 Modern Rhetoric (3)
- PRWR 641 Theory of Creativity (3)
- PRWR 660 Semiotics for the Professional Writer (3)
- PRWR 670 Topics in Writing (3)
- PRWR 705 Writing Creative Nonfiction (3)
- PRWR 713 Freelance Writing (3)
- PRWR 729 Corporate Communications Consulting (3)
- PRWR 730 Writing Reviews (3)
- PRWR 731 Science and its Public Audience (3)
- PRWR 795 Independent Study in Writing (3)

### Non-Thesis Option

Students select 18 credits of electives from the courses listed above.

## Writing in the Professions Concentration

### Thesis Option

PRWR 897 Thesis (6)  
and 12 credits selected from courses in the specialization.

### Non-Thesis Option

Students take 18 credits in the specialization.

## Tracks

### Writing for the Health Professions (18 credits)

Nine to 18 credits are selected from the courses listed below. If fewer than 18 credits

are selected from these courses, the remaining credits are chosen from the list of general elective courses at the end of this section.

- HLTH 617 Health Administration (3)
- HLTH 633 Health Care Systems (3)
- HLTH 651 Planning and Marketing Health in Business and Industry (3)
- ISTC 553 Instructional Photography (3)
- ISTC 633 Instructional Video (3)
- ISTC 655 Media Design and Production (3)
- ISTC 667 Instructional Development (3)

### Teaching Writing (18 credits)

Nine to 18 credits are selected from the courses listed below. If fewer than 18 credits are selected from these courses, the remaining credits are chosen from the list of general elective courses at the end of this section.

### Required Courses

(consult with Teaching Writing adviser)

- SCED 603 Teaching Writing Across the Curriculum (3)  
or
- SCED 605 Theory, Research and Practice in Teaching Composition (6)  
(by invitation only)  
or
- SCED 558 Writing as a Learning Tool in the Secondary School (3)

### Electives

- EDUC 661 Responding to and Evaluating Writing (3)
- EDUC 665 Practicum in Writing Instruction (3)
- EDUC 667 Writing as Thinking (3)
- EDUC 785 Research in the Teaching of Writing (3)
- EDUC 761 Introduction to Research in Education (3)
- PRWR 633 Teaching College Composition (3)

### Teaching College Writing (18 credits)

Nine to 18 credits are selected from the courses listed below. If fewer than 18 credits are selected from these courses, the remaining

credits are chosen from the list of general elective courses at the end of this section.

### Required Courses

PRWR 621	Business Writing (3) or
PRWR 623	Technical and Scientific Writing (3)
PRWR 633	Teaching College Composition (3)
PRWR 797	Internship in College Teaching (3)*

\*Or the equivalent. Students who have experience teaching at the college level or who have other comparable experience may apply to the MPW director for a waiver of this requirement. Students who wish additional experience in the classroom may elect to take a tutoring/observation/teaching practicum before enrolling in Internship in College Teaching. Because work in PRWR 797 includes assignments that must be completed in a classroom setting, students must take PRWR 797 and PRWR 633 concurrently unless they have been granted a waiver or enrolled in the practicum.

### Electives

PRWR 627	Modern Rhetoric (3)
PRWR 641	Theory of Creativity (3)
PRWR 660	Semiotics for the Professional Writer (3)
PRWR 6xx	Language and Ideology (3)
PRWR 6xx	Poetics (3)
PRWR 705	Writing Creative Nonfiction (3)

### Journalistic Writing (18 credits)

Nine to 18 credits are selected from the courses listed below.

MCOM 507	Writing for New Media (3)
MCOM 5xx	Literary Journalism (3)
MCOM 601	Media Writing (3)
MCOM 603	Criticism in Mass Media (3)
MCOM 621	Mass Media Law and Regulations (3)
MCOM 635	Journalism Ethics (3)
MCOM 651	Media and Politics (3)
MCOM 670-673	Special Topics in Mass Communication (3)

MCOM 713	Freelance Writing (3)
MCOM 715	Specialized Reporting (3)
MCOM 781	Internship in Journalism (3)
MCOM 795	Independent Study in Mass Communication (3)
MCOM 880	Graduate Project in Mass Communication (3)

If fewer than 18 credits are selected from these courses, the remaining credits are chosen from the following courses:

PRWR 625	Design, Layout and Production (3)
PRWR 670-679	Special Topics in Writing (3)
PRWR 705	Writing Creative Nonfiction (3)
PRWR 713	Freelance Writing (3)
PRWR 730	Writing Reviews (3)
PRWR 731	Science and its Public Audience (3)

### Scientific Writing (18 credits)

PRWR 623	Technical and Scientific Writing (3)
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and 6 credits from:

PRWR 660	Semiotics for the Professional Writer (3)
PRWR 670	Topics in Writing (3) (when applicable)
PRWR 729	Corporate Communications Consulting (3)
PRWR 731	Science and its Public Audience (3)
PRWR 795	Independent Study in Writing (3)

Nine credits from the following departments: biology, chemistry, computer science, mathematics, physics or psychology.

The scientific writing specialization does not offer a thesis option.

### Creative Writing (18 credits)

Nine to 18 credits are selected from the courses listed below. If fewer than 18 credits are selected from these courses, the remaining credits are chosen from the list of elective courses at the end of this section.

PRWR 641	Theory of Creativity (3)
PRWR 647	Writing Poetry (3)
PRWR 651	Writing Short Fiction (3)
PRWR 653	Writing the Novel (3)
PRWR 670	Topics in Writing (3) (when applicable)
PRWR 705	Writing Creative Nonfiction (3)
PRWR 795	Independent Study in Writing (3)
PRWR 897	Thesis (6)

## Electives

Up to three of the following courses may be elected by students to supplement their work in any special application except scientific writing.

PRWR 619	Communication in the Profit/Nonprofit Sectors (3)
PRWR 621	Business Writing (3)
PRWR 623	Technical and Scientific Writing (3)
PRWR 625	Design, Layout and Production (3)
PRWR 627	Modern Rhetoric (3)
PRWR 660	Semiotics for the Professional Writer (3)
PRWR 670	Topics in Writing (3)
PRWR 705	Writing Creative Nonfiction (3)
PRWR 713	Freelance Writing (3)
PRWR 729	Corporate Communications Consulting (3)
PRWR 730	Writing Reviews (3)
PRWR 731	Science and its Public Audience (3)
PRWR 795	Independent Study in Writing (3)

## PSYCHOLOGY

Degree: Master of Arts  
 Vice Chair, Graduate Programs in Psychology:  
 Susan Bartels  
 410-704-3070  
 sbartels@towson.edu

The program offers students the opportunity for in-depth specialization in one of four psychological areas. The tracks are: Clinical Psychology, Counseling Psychology, Experimental Psychology and School Psychology.

Each is described below in detail with reference to objectives and requirements. All program prerequisite courses are undergraduate courses.

The faculty in the Department of Psychology recognizes a special responsibility to the profession of psychology to ensure that all graduates of the program demonstrate attitudes and behavior consistent with the standards of the profession. The faculty of the specialization involved may recommend to the program director disciplinary action for such behavior as dishonesty, unethical conduct, or other behaviors construed by the faculty as counterproductive to the field of psychology. Students have the right to appeal any action to the Professional Standards Committee of the Department of Psychology.

Students who complete one of the Master of Arts in Psychology tracks are prepared to enter a variety of professions as well as pursue post-master's and doctoral studies.

## CLINICAL PSYCHOLOGY

Program Director: Barry A. Bass  
 410-704-3072  
 bass@towson.edu

The Clinical Psychology Track of the Master of Arts in Psychology is designed for students seeking training and experience in the applied professional aspects of clinical psychology. Although a significant number of graduates go on for further graduate study in psychology, the primary focus of the program is the preparation of master's-level psychologists for employment in state and other nonprofit organizations.

Because of the applied professional emphasis, the majority of required clinical courses address the theoretical and practical issues involved in providing direct clinical services. Students take courses in psychotherapy and behavior change, preparing them to practice individual, family and group intervention techniques. Advanced elective seminars in legal and ethical issues in clinical psychology and cognitive-behavior therapy are offered regularly. Professional

courses in psychological testing prepare students to administer and interpret psychometric instruments used to conduct intellectual, neurological and personality assessments. In keeping with the professional emphasis of the program, all courses are limited to no more than 16 students and are open only to students matriculating in the clinical psychology program.

A unique feature of the track is the requirement for successful completion of a half-time, nine-month internship during which students provide supervised psychological services to clients in an off-campus mental health setting. During the internship year, students can specialize by working primarily with adults, families or children in either an in-patient or out-patient facility. Among the internship placement sites are: community mental health centers and clinics, state psychiatric hospitals, and other psychological service centers.

Students may choose either the thesis or non-thesis option. A minimum of 39 credits are required for the degree without the thesis or 42 credits with the thesis. Clinical psychology students are encouraged to attend full time so as to complete all program requirements within four semesters. Students may, however, attend part time for some or all of their degree work.

### Admission Requirements

- Courses in the following areas:  
General Psychology (3)  
Abnormal Psychology (3)  
Personality (3)  
Behavioral Statistics (3)  
Tests and Measurements (3)

NOTE: These courses cannot be used to meet part of the formal elective requirements for the degree as defined below.

- Acceptable performance on the General Test of the Graduate Record Examination. Applicants are encouraged, but not required, to take the Psychology Subject Test of the Graduate Record Examination.
- An interview with the program director of the clinical psychology program.

- Two letters of recommendation. Use the Recommendation Form found in the Graduate School Application Packet and send it to the program director.
- A minimum undergraduate grade point average of 3.00 for full admission and 2.75 for conditional admission. All GPA calculations for admission are based upon the last 60 credits of undergraduate and post-baccalaureate study.
- Students are admitted to the Clinical Psychology program for the fall semester only. Those wishing to begin graduate work in the fall must have their completed application and all admission credentials submitted to the Graduate School by February 1. Admission is granted on a competitive, space-available basis.

### Degree Requirements

Students complete required prerequisite courses.

### *Plan A: Master of Arts with Thesis (minimum 42 credits)*

#### Required Courses

PSYC 620	Assessment of Intelligence (3)
PSYC 631	Advanced Abnormal Psychology (3)
PSYC 653	Research Issues in Clinical Psychology (3)
PSYC 665	Psychotherapy and Behavior Change I (3)
PSYC 666	Psychotherapy and Behavior Change II (3)
PSYC 697	Practicum in Clinical Psychology (3)
PSYC 765	Personality Assessment in Clinical Psychology (3)
PSYC 766	Advanced Personality Assessment in Clinical Psychology (3)
PSYC 790	Ethical, Legal and Professional Issues in Psychology (3)
PSYC 797	Internship in Clinical Psychology (3)
PSYC 897	Thesis (6)

## Electives

Six credits of courses are elected by the student from within or outside the field of psychology to complement the program of study. Prior written consent of the clinical director must be obtained.

### ***Plan B: Master of Arts without Thesis (minimum 39 credits)***

- Required courses are identical to those in Plan A except for thesis.
- Electives (9 credits)
- All students must obtain the grade of B or higher in PSYC 697 Practicum in Clinical Psychology and PSYC 797 Internship in Clinical Psychology. Students earning a grade lower than B in either course may repeat that course no more than one time. Failure to earn a B or higher in both courses will result in dismissal from the program.

NOTE: The practicum and internship carry with them a residency requirement of two semesters. The student must be available for placement in a clinical setting.

## COUNSELING PSYCHOLOGY

Program Director: Cynthia R. Kalodner  
410-704-3063  
ckalodner@towson.edu

The overall focus of the Counseling Psychology Track of the Master of Arts in Psychology is to train individuals to become professionally responsible facilitators for growth and development for persons with mental health problems and problems with living.

This track is intended for persons wishing to counsel patients or clients with concerns in the personal, social, vocational or educational areas.

A graduate of the Counseling Psychology Track of this program may find employment in a variety of settings, such as community mental health centers, mental hospitals, group homes, rehabilitation centers or substance abuse programs.

Students are encouraged to attend full time to meet the program requirements in two

years. Students may, however, attend part time for some of their degree work. Some courses are offered during the summer session.

## Admission Requirements

- Students must have taken the following prerequisites (all of which must be completed with a C or better):
  - General Psychology (3)
  - Behavioral Statistics (3)
  - Research Methods (3)
  - Abnormal Psychology (3)
- An undergraduate grade point average of 3.00 is required for full admission, a GPA of 2.75 is required for a conditional admission. Conditional admission will be accepted if the program has spaces after accepting persons for full admission. All GPA calculations for admission are based upon the last 60 credits of undergraduate and post-baccalaureate study.
- Three letters of recommendation, which attest the applicant's possession of good interpersonal skills, are also required. Use the Recommendation Form found in the Graduate School Application Packet, and send it to the program director.
- Acceptable performance on the Graduate Record Examination (GRE).
- A letter of intent indicating why the applicant is interested in pursuing a graduate degree in Counseling Psychology. Send directly to the program director.
- The highest ranking applicants will be required to interview with the faculty of the Counseling Psychology program.
- Completed applications and admission credentials must meet the deadline of January 15 for fall semester admission. Applications are not accepted for spring admission. Admission is granted on a competitive, space-available basis.

## Degree Requirements

Students complete required prerequisite courses. Students should be prepared to take at least two and one-half years to complete the program.

**Required Courses**

PSYC 605	Counseling Techniques (3)
PSYC 606	Career Development (3)
PSYC 607	Applied Theories of Counseling (3)
PSYC 609	Advanced Counseling Techniques (3)
PSYC 611	Developmental Psychology (3)
PSYC 613	Community Mental Health Counseling (3)
PSYC 615	Introduction to Research Methods in Counseling (3)
PSYC 631	Advanced Abnormal Psychology (3)
PSYC 647	Use of Tests in Counseling (3)
PSYC 721	Group Counseling (3)
PSYC 722	Advanced Multicultural Counseling (3)
PSYC 745	Practicum in Counseling Psychology (3)
PSYC 790	Ethical, Legal and Professional Issues in Psychology (3)
PSYC 793	Internship in Counseling (6)

**Electives (3 credits)**

Students are also required to take one 3-credit elective course.

NOTE: Electives selected by students must have prior written consent of the adviser and must be approved for the student's program of study.

**Field Experiences**

This program includes field experiences in the form of practicum and internship. These clinical experiences are part of the requirements necessary for certification or licensure in the state of Maryland.

**Practicum:** During the second year of the program, concurrent with other coursework, students enroll in a semester long practicum course. The course involves 240 clock hours (16 hours a week) of placement in a setting where students provide counseling under the supervision of a licensed mental health professional. Practicum also involves attendance and participation in a required weekly class on

campus. The practicum placements are arranged by the program faculty in consultation with the student and available licensed supervisors. During the practicum, students engage in clinical experiences appropriate for their level of professional training.

**Internship:** Following successful completion of the practicum, students complete a supervised 600 hour internship in a clinical setting. This experience is usually completed on a full time basis (40 hours a week) in one semester, but it can be completed 20 hours a week for two semesters. Internships are also supervised by a licensed mental health professional and include a weekly class meeting.

**Examinations**

At the end of the first year of full time study and in the last semester of enrollment, students participate in a formal evaluation process to assess their knowledge and skills in counseling psychology.

- First Year Portfolio evaluation contains assessment of basic counseling skills, counseling theories, developmental psychology, community mental health counseling, advanced abnormal psychology, use of tests in counseling and ethics. The completion of this evaluation is a prerequisite for the following courses: PSYC 718, 721, 745 and 793.
- Comprehensive Portfolio evaluation contains assessment of advanced counseling skills, career counseling, research, multicultural counseling and group counseling. Students will be given two attempts to complete these examinations. Students who do not complete these examinations after two unsuccessful attempts will not earn a degree in counseling psychology.

All degree candidates must meet with their academic adviser to file intended programs of study. This should be done prior to or during the first semester of course work. The program can be amended in consultation with the adviser.



## GRADUATE POST-MASTER'S PROGRAM

The graduate post-master's program in Counseling Psychology is designed for students who have completed a master's degree and would like to be enrolled in 12-18 credits to meet educational and vocational objectives.

Each student's program will be designed to meet individual needs and goals.

### Required Courses

PSYC 637	Counseling Strategies for Drug and Alcohol Abuse (3)
PSYC 718	Techniques of Family Counseling (3)
PSYC 793	6-credit Internship II (400 hours)

## COUNSELING PSYCHOLOGY CERTIFICATE OF ADVANCED STUDY (CAS)

Program Director: Cynthia R. Kalodner  
410-704-3063  
ckalodner@towson.edu

The Certificate of Advanced Study (CAS) in Counseling Psychology is specifically designed for post-master's degree students who wish to take 30 credits beyond the master's degree to meet educational and vocational objectives.

Each student's program will be designed to meet individual needs and goals.

Students who already possess a master's degree from an accredited institution in a human services field may apply to Towson University specifically to enter the CAS program. The following courses will complete state course work requirements for licensure:

PSYC 606	Career Development (3)
PSYC 637	Counseling Strategies for Drug and Alcohol Abuse (3)
PSYC 718	Techniques of Family Counseling (3)
PSYC 722	Advanced Multicultural Counseling (3)

PSYC 745	Practicum in Counseling Psychology (3)
PSYC 790	Ethical, Legal and Professional Issues in Psychology (3)
PSYC 793	Internship in Counseling (3-9)

### Electives (3-9)

### Admission Requirements

Applicants for the CAS certificate must have completed a master's degree, submit two letters of recommendation and a letter of intent indicating why the applicant is interested in pursuing this certification. Admission will be determined on a competitive basis. Transfer credits will be accepted in accordance with Graduate School policies, and with the approval of the program director.

## EXPERIMENTAL PSYCHOLOGY

Program Director: Craig Johnson  
410-704-3218  
cjohanson@towson.edu

The Experimental Psychology Track of the Master of Arts program in Psychology at Towson University is designed to prepare students for conducting research in industrial, government, private consulting or hospital settings or for enrollment in doctoral programs.

The track is intended either for students who have completed an undergraduate degree in psychology or for those students who have undergraduate degrees in other majors who are interested in pursuing psychological research.

Students may pursue course work in a variety of areas of specialization within psychology. Graduates will be prepared to pursue other advanced degrees in psychology in a variety of specialty areas or prepare for such positions as laboratory researcher, experimental designer, or psychometrician. Students in the track receive extensive training in research design and analysis and have access to a large and diverse faculty. Students receive considerable personal attention; most classes have fewer than 16 students. As a result,

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students have been very successful in either gaining admission to doctoral programs or finding employment in the field of research design and analysis.

A thesis is required of all students.

Students may work toward the degree either full- or part-time. Courses are offered only in the late afternoons and evenings.

### Admission Requirements

- Prerequisite courses in the following areas:
  - Statistics (3)
  - Experimental Psychology/Research Methods in Psychology (4)
  - Learning (3)
- A minimum undergraduate GPA of 2.50 is required for conditional admission to the program and 3.00 for full admission. All GPA calculations for admission are based upon the last 60 credits of undergraduate and post-baccalaureate study.
- Two letters of recommendation. Letters commenting on research experience are particularly useful. Use the Recommendation Form found in the Graduate School Application Packet, and send it directly to the program director.
- Completed application and admission credentials must meet the deadlines of January 15 for fall semester and October 15 for spring semester. Admission is granted on a competitive, space-available basis.

### Degree Requirements

#### Core Program (32 credits)

PSYC 673	Advanced Experimental Psychology I (4)
PSYC 674	Advanced Experimental Psychology II (4)
PSYC 675	Proseminar I (3)
PSYC 676	Proseminar II (3)
PSYC 677	Learning (3)
PSYC 679	Special Topics Seminar (3)
PSYC 687	Advanced Experimental Design I (3)
PSYC 688	Advanced Experimental Design II (3)
	or
PSYC 689	Multivariate Methods (3)
PSYC 897	Thesis (6)

### Electives (7 credits)

The student may take any graduate elective at the 500- to 700-level with permission from the program director.

### SCHOOL PSYCHOLOGY

Degree: Certificate of Advanced Study and Master of Arts

Program Director: Susan M. Bartels

410-704-3070

[sbartels@towson.edu](mailto:sbartels@towson.edu)

The School Psychology Track of the Master of Arts in Psychology is fully accredited by the National Association of School Psychologists (NASP). Students are expected to complete 63 credits in order to obtain the master's (M.A.) degree and Certificate of Advanced Study (CAS). Students who graduate from this track are eligible for certification as school psychologists in the state of Maryland, pending successful completion of the national certification examination. Graduates of the program are also qualified for a variety of positions within the field of psychology and for entrance into doctoral programs.

The mission of the School Psychology Track is to produce school psychologists who are well prepared to function independently in a growing and evolving profession. Course work and field experiences emphasize early intervention and the use of data-driven, systematic problem solving to address the needs of children and adolescents in the school setting. Students are trained to provide consultation to teachers, parents and administrators; to provide counseling to children and adolescents; to complete ecological assessments of classroom environments; and to administer and interpret a variety of psychological tests. Students are trained to complete multidimensional evaluations that address the specific reason for referral and that are directly linked to recommendations for intervention. This track promotes the use of intervention and assessment techniques that are empirically sound and sensitive to the diverse population of students that school psychologists serve. Students learn and comply with the ethical principles of psychologists

and with legislation relevant to children in school environments.

### Admission Requirements

- At least 21 undergraduate credits in psychology, which include courses in each of the following areas (all of which must be completed with a grade of C or better):
  - Behavioral Statistics
  - Abnormal Psychology or Psychopathology
  - Social Psychology
  - A minimum of 3 credits selected from the following: Experimental Psychology, Experimental Design, or Research Design
  - A minimum of 3 credits selected from the following: Child Psychology, Adolescent Psychology, Human Development
  - A minimum of 3 credits selected from the following: Educational Psychology, Behavioral Principles, Behavior Management

NOTE: These undergraduate prerequisites cannot be used to satisfy any part of the requirements of the degree. They must be completed prior to initiation of course work for the degree.

- A minimum undergraduate GPA of 3.00 is required for admission to the program. Students with GPAs between 2.75 and 2.99 with special circumstances may be admitted conditionally. All GPA calculations for admission are based upon the last 60 credits of undergraduate and post-baccalaureate study.
- Three letters of recommendation. Applicants may use the Recommendation Form found in the Graduate School Application Packet, or may submit recommendation letters. Letters are encouraged. Send directly to the program director.
- A letter of intent indicating why the applicant is interested in pursuing graduate study in school psychology. Send directly to the program director.
- Acceptable performance on the General Test of the Graduate Record Examination

(GRE). Competency for graduate study can also be evidenced by an earned master's degree in psychology in lieu of the GRE. The GRE requirement may also be waived for international students who can document at least two years of successful employment at the professional level in school psychology, psychology or a clearly related field.

- Completed application and admission credentials must meet the deadline of January 15 for fall admissions. Applications are not accepted for spring admission.
- The highest ranking applicants will be required to interview with the faculty of the School Psychology program.

NOTE: For candidates already possessing a master's degree in School Psychology, courses from a previous degree in School Psychology must be required courses in the current CAS program in order to be accepted toward fulfilling requirements for the CAS. Courses that have been taken for the previous M.A. will be reviewed for currency by the program director. Additionally, students must earn a minimum of 30 credits past their M.A. to graduate with the CAS.

### Certificate Requirements

#### Required Courses

PSYC 603	Human Learning (3)
PSYC 605	Counseling Techniques (3)
PSYC 620	Assessment of Intelligence (3)
PSYC 622	Advanced Multicultural Psychology (3)
PSYC 625	Behavioral Techniques (3)
PSYC 651	Individual and Group Interventions (3)
PSYC 687	Advanced Experimental Design I (3)
PSYC 703	Preschool Assessment (3)
PSYC 713	Role of the School Psychologist (3)
PSYC 731	School-Based Consultation (3)
PSYC 733	Exceptional Child: Advanced Issues (3)
PSYC 761	Social/Emotional Assessment (3)

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PSYC 771	School Psychology Practicum I (3)
PSYC 773	School Psychology Practicum II (3)
PSYC 790	Ethical, Legal and Professional Issues in Psychology (3)
PSYC 794	Internship (1,200 hours, full-time) (9)

One course in instructional methods, curriculum theory or reading (3)

A course in Family/Professional Collaboration (3)

### Field Experiences

**Practicum:** During the second year of the program, concurrent with other course work, students enroll in a full-year practicum course (fall and spring semesters). The course includes a one-day per week placement in a local school system under the supervision of a certified school psychologist (arranged by the program faculty) and a weekly seminar on campus. During practicum, students engage in a carefully sequenced series of experiences suited to their level of professional training.

**Internship:** Following successful completion of the practicum, students are eligible to apply for internships. The 1200-hour internship is considered a capstone experience and occurs after the completion of all course work. Internships are completed on a full-time basis over one year or on a part-time basis over two years. Students in local placements (approximately 90% of our students) attend a biweekly seminar on campus taught by the internship coordinator, who is a full-time school psychology faculty member.

### Examinations

#### • Master's Comprehensive Examination

The written comprehensive exam is required to receive a master's degree and must be completed successfully before a student begins the internship. Students have one opportunity to retake the comprehensive exam if it is not passed the first time it is taken.

#### • Portfolio Evaluation

All CAS candidates are required to submit a professional portfolio during the last semester of their internship. Specific contents and standards for portfolios are provided to students by their advisers. In general, the professional portfolio contains samples of interventions conducted with students and teachers, workshops developed for teachers and parents, various diagnostic reports, and a self-reflective essay.

### FAMILY STUDIES CERTIFICATE

Students interested in enhancing their knowledge of family-related issues might consider pursuing the Post-baccalaureate Certificate in Family Studies as they complete their master's degree. For more information, see the description of this graduate program in the Interdisciplinary Programs section of this catalog.

### SOCIAL SCIENCE

Degree: Master of Science  
Program Director: Nicole Dombrowski  
410-704-2907  
ndombrowski@towson.edu

The Master of Science degree program in Social Science offers the opportunity for professional enhancement especially in content areas of the social sciences. Experienced teachers wishing to return to the university to study the latest advancements in theoretical, methodological and substantive issues in the social sciences will be especially served. The program is also open to all post-baccalaureate students and may be of particular interest to professionals active in government and applied fields attracted to the latest developments in the social sciences.

Students will follow a program of study coordinated by the departments of Economics; Geography and Environmental Planning; History; Political Science; Psychology; and Sociology, Anthropology and Criminal Justice. The program aims to familiarize students with research, theoretical advances, applications and methodological approaches

to current topics important to the field of social sciences and the world. The program exposes students to interdisciplinary approaches to related subjects and also allows them to specialize in a discipline of particular interest.

### Admission Requirements

- A bachelor's degree with grade point average of 3.00 during last 60 undergraduate credits
- Three letters of recommendation
- A two-page statement of intent

### Transfer Credits

Students may apply 6 transfer credits with the grade of B or better, to the elective requirements only within the selected disciplinary track. The program coordinator must approve transfer credits. Approval may be conditional upon the submission of previous written work. All transfers are subject to the seven-year statute of limitations.

### Degree Requirements

- Completion of the 36-credit program of study.
- Completion of 18 credits of core requirements. The offerings within the core program of study will include:

SOSC 600 Interdisciplinary Approaches to Global Problems (3)

*And five of the following courses:*

SOSC 601 The Geographer's View (3)

SOSC 602 The Historian's Approach: Comparative History and Historiography (3)

SOSC 603 The Economist's Perspective (3)

SOSC 605 American Politics in the 21st Century (3)

SOSC 606 Sociological Insights (3)

SOSC 609 Developmental Human Learning: A Life Span Approach (3)

- Completion of 18 credits beyond the core requirements with 12 credits required within a selected disciplinary track and 6 credits allowed within any of the other four program disciplines.
- Students choose their departmental disciplinary track.
- Within each disciplinary track students choose between Option A or B.

### Option A: Thesis Track

- 500-700-level courses (two within track department) (9 credits)
- 600-700-level courses (any non-track department) (3 credits)
- Thesis (within track department) (6 credits)

### Option B: Professional Presentation (Non-thesis track)

- 500-700-level courses (within track department) (12 credits)
- 600-700-level courses (any non-track department) (6 credits)
- Professional Presentation

Students must deliver a peer-reviewed presentation for a university, local or national conference, organized by their track discipline or give a presentation to an assembly of Towson University faculty and program peers.

### Final Portfolio

The program requires that all students (Option A and B) prepare a final portfolio of their work under the direction of their track adviser.



## THE COLLEGE OF SCIENCE AND MATHEMATICS

The College of Science and Mathematics is committed to developing dynamic and confident graduates who are well prepared to respond creatively to the demands and challenges of the new century. The college's reputation for excellence in graduate education is built upon the philosophy of learning by doing. Students work closely with faculty, receiving quality instruction in small classes as well as opportunities for one-on-one interaction between students and faculty in classrooms and laboratories.

The college serves both full- and part-time students with diverse backgrounds pursuing career and educational goals. The college is also committed to the preparation of elementary and secondary teacher training within the disciplines of science and mathematics.

Faculty members are active in pure and applied research, many are widely published and receive external funding in support of their research. Faculty research programs include nanotechnology, signal processing, astrophysics, chemistry, molecular biology, biochemistry, ecology, geology, biodiversity, statistics, applied and pure mathematics, and computing. Several faculty members work in collaboration with industry and government labs, and their work is supported by grants from major funding agencies. Faculty members are often involved in a range of outreach activities, providing professional development programs for teachers or service to the community that draws on their professional experience.

Gerald Intemann, Dean

Katherine Denniston, Associate Dean

### COLLEGE OFFICE

Smith Hall, Room 312

410-704-2121

Fax: 410-704-2604

csm@towson.edu

www.towson.edu/csm

### Doctoral Degree Program

Applied Information Technology

### Master's Degree Programs

Applied and Industrial Mathematics

Applied Information Technology

Biology

Computer Science

Environmental Science

Mathematics Education

Science Education

### Post-baccalaureate Certificate Programs

Chemistry

Database Management Systems

Environmental Science

Information Security and Assurance

Information Systems Management

Internet Application Development

Networking Technologies

Software Engineering

## APPLIED AND INDUSTRIAL MATHEMATICS

Degree: Master of Science

Program Director: Mostafa Aminzadeh  
410-704-2978

maminzadeh@towson.edu

The Master of Science in Applied and Industrial Mathematics program provides students with a broad knowledge in applied mathematics, with an emphasis on areas with the highest demand in business and industry. Among the areas stressed in the program are mathematical modeling, numerical computations, operations research, chaotic dynamics, queuing systems and time series analysis. Numerical, computational and algorithmic approaches to problem solving are stressed throughout the program. Graduates of the program will be qualified to work in such fields as operations research, stochastic modeling, and spectral analysis, among many others. Graduates of the program will also be prepared for further work at the doctoral level.

The program also includes a two-semester (6 credit) internship component, a unique feature in the Baltimore area. This internship, which is usually completed in cooperation with one of the mathematics department's established industrial partners, permits students to get vital practical experience working on real problems that are meaningful to business and industry. Another option for fulfilling the internship requirement is to play a leadership role in one of the projects investigated by the department's applied mathematics laboratory. Typically, these projects are sponsored by corporations and government agencies. Students whose careers are in education may, with the approval of the department's Graduate Program Committee, replace the industrial setting of the internship with an educational setting. This will typically entail the development of original course material stressing applied mathematics and using innovative teaching techniques, for example, interactive texts.

The main objectives of the program are: 1) to prepare individuals who are capable of applying advanced mathematical skills to problems in areas of science, business and industry; 2) to develop the students' abilities to integrate, in a meaningful way, the use of technology in their everyday professional practice; 3) to give educators an opportunity to satisfy their in-service requirements and simultaneously enhance their knowledge of technology and enrich their mathematical backgrounds; 4) to supply students with the mathematical competency necessary for advancement to a more professional role in the high-technology sector; 5) to develop students' reasoning and communication skills for improved service to the high-technology sector; 6) to educate students to solve problems, to work in teams and to communicate in an interdisciplinary setting; 7) to familiarize students with the recent advances in applied mathematics such as fractal geometry, chaotic dynamics, wavelets, spectral analysis, operations research and stochastic modeling; 8) to prepare students for further graduate work at the doctoral level in applied mathematics; and 9) to enrich the academic culture by providing opportunities for interaction of mathematical and industrial research.

Both full-time and part-time students are encouraged to enroll in the program. Core courses are usually offered in the evening, for the convenience of part-time students.

### Admission Requirements

- A baccalaureate degree in mathematics or any other field. The applicant's undergraduate training must have included at least three semesters of calculus, a course in differential equations and a course in linear algebra. Students with any deficiency in their mathematical background may be admitted conditionally if they are willing to correct such deficiency.
- An undergraduate grade point average of 3.00 for full admission or 2.50 for conditional admission is required. All GPA cal-



culations for admission are based upon the last 60 credits of undergraduate and post-baccalaureate study.

- For international students whose native language is not English, English competency must be certified by the achievement of a minimum of 500 on the Test of English as a Foreign Language (TOEFL).

## Degree Requirements

The student is required to successfully complete a total of 10 courses (a minimum of 30 credits) as indicated below. A student may transfer up to two graduate-level mathematics courses taken at another institution, provided that the transfer is consistent with the Graduate School policy. Students are required to submit a written technical report and to give an oral presentation based on their internship to the Graduate Program Committee. Satisfactory completion of this summary of the internship experience is one of the requirements for graduation.

## Required Courses

At least six courses from the list A below; must include MATH 791 and MATH 792.

### LIST A

- |          |   |
|----------|---|
| MATH 632 | Computational Stochastic Modeling (3)               |
| MATH 633 | Queuing Systems (3)                                 |
| MATH 634 | Computational Spectral Analysis and Time Series (3) |
| MATH 635 | Applied Numerical Analysis (3)                      |
| MATH 636 | Linear and Nonlinear Programming (3)                |
| MATH 637 | Advanced Topics in Applied Operations Research (3)  |
| MATH 651 | Mathematics of Fuzzy Logic (3)                      |
| MATH 671 | Chaotic Dynamics and Fractal Geometry (3)           |
| MATH 673 | Applied Industrial Mathematics I (3)                |
| MATH 674 | Applied Industrial Mathematics II (3)               |
| MATH 677 | Advanced Mathematical Modeling (3)                  |

- |          |                            |
|----------|----------------------------|
| MATH 791 | Master's Internship I (3)  |
| MATH 792 | Master's Internship II (3) |

## Electives

One or two courses from list B and up to three courses from list C

### LIST B

- |          |  |
|----------|--|
| COSC 581 | Artificial Intelligence (3)                                  |
| COSC 686 | Computer Graphics (3)  |
| COSC 600 | Advanced File and Data Organization (3)                      |
| COSC 611 | Computer Simulation (3)                                      |
| COSC 661 | Artificial Intelligence Programming and Adaptive Systems (3) |

### LIST C

- |          |   |
|----------|---|
| MATH 532 | Mathematical Statistics (4)                     |
| MATH 533 | Applied Regression and Correlation Analysis (3) |
| MATH 534 | Nonparametric Statistical Methods (3)           |
| MATH 538 | Life Contingencies I (3)                        |
| MATH 543 | Applied Analysis of Variance (3)                |
| MATH 546 | Statistical Methods in Quality Control (3)      |
| MATH 551 | Graph Theory (3)                                |
| MATH 563 | Linear Algebra (3)                              |
| MATH 568 | Algebraic Structures (4)                        |
| MATH 576 | Introductory Real Analysis (4)                  |
| MATH 577 | Complex Analysis (3)                            |
| MATH 579 | Advanced Calculus (3)                           |

## APPLIED INFORMATION TECHNOLOGY

Degree: Doctorate of Science (D.Sc.)

Program Director: Ramesh Karne

410-704-3955

rkarne@towson.edu

Applied Information Technology is the study, design, development, implementation, and support of computer-based information systems to address real-world problems. This program will provide graduate level education at the doctoral level in IT for those preparing to enter the higher education workforce as well as the high tech workforce and those already in

the workforce who need to update and enhance their skills.

### Admission Requirements

- Completion of Master's Degree in AIT, CIS, CS or a closely related area
- Minimum TOEFL score of 550 (where applicable)
- Minimum of two letters of recommendation
- Statement letter indicating educational and professional objectives of the candidate.

### Degree Requirements (75 credit hours beyond B.S./B.A. Degree)

1) Completion of requirements for a Master's degree (33 credit hours) in Applied Information Technology, Computer Information Systems, Information Science, Computer Science, or any other closely related areas. (completion of master's degree is required for full admission to the Doctoral program.)

- Students may choose to complete the requirements for Master's degree in CS (page 109 graduate catalog, 2004) or in AIT (page 102, graduate catalog, 2004) at Towson University.

2) Completion of a minimum of 18 additional graduate-level credit hours from among the list of courses for the Doctoral program as recommended by the program committee. Completion of a minimum of 18 additional graduate-level credit hours from among the list of courses for the Doctoral program as recommended by the program committee. For those applicants whose master's degree is not in AIT, CIS, IS, or CS, the program committee (structure of program committee is given in appendix A) may assign additional courses to be completed based on individual cases.

- 3) Satisfactory completion of written/oral assessment examination.
- 4) Satisfactory completion of Dissertation requirement. (24 credits—may not be registered more than 9 credit hours per semester)
- 5) Satisfactory completion of Dissertation defense.

### APPLIED INFORMATION TECHNOLOGY

Degree: Master of Science and Certificates in Applied Information Technology

Program Director: Ali Behforooz

410-704-4909

CAIT@towson.edu

www.towson.edu/CAIT

Applied Information Technology is the study, design, development, implementation and support of computer-based information systems to address real-world problems. This program provides graduate-level education in IT for students preparing to enter the high-tech work force and those already in the work force who need to update and enhance their skills. We offer courses in areas such as systems development, IT project management, Web page development and IT and business analysis. Graduate certificates in Internet application development, information security and assurance, information systems management, networking technologies, software engineering, and database management systems are integrated with the M.S. degree program.

### Admission Requirements

- A baccalaureate degree from an accredited college or university
- A minimum undergraduate grade point average of 3.00 for full admission and 2.50 for conditional admission
- Minimum TOEFL score of 550 (where applicable)

These programs are intended for students who have a bachelor's degree in information technology, computer science, computer information systems, or a related field who will enter the program for advanced studies; students who have a bachelor's degree in a field not listed above who are already employed in the IT field and are seeking additional academic studies for professional growth or career advancement; and students who have a bachelor's degree in disciplines other than IT who are seeking preparation for careers in this field.

**Degree Requirements**

- Completion of any assigned preparatory courses.
- Completion of 33 graduate credits as follows:

**Required Courses (15 credits)**

Students must complete the requirements for a Graduate Certificate in Applied Information Technology. Currently, the following graduate certificates in information technology are available. Additional graduate certificates may be added to this list in the future.

**Database Management Systems**

AIT 600	Information Technology Infrastructure (3)
AIT 610	Systems Development Process (3)
AIT 632	Database Management Systems (3)
AIT 732	Advanced Database Management Systems (3)
AIT 735	Case Studies in Database Management Systems (3)

**Information Security and Assurance**

AIT 600	Information Technology Infrastructure (3)
AIT 610	Systems Development Process (3)
AIT 612	Information Systems Vulnerability and Risk Analysis (3)
AIT 614	Network Security (3)
AIT 710	Case Studies in Information Security (3)

**Information Systems Management**

AIT 600	Information Technology Infrastructure (3)
AIT 610	Systems Development Process (3)
AIT 628	IT and Business Strategy (3)
AIT 630	IT Project Management (3)
AIT 730	Case Studies in Information Systems Management (3)

**Internet Application Development**

AIT 600	Information Technology Infrastructure (3)
AIT 610	Systems Development Process (3)
AIT 616	Fundamentals of Web Technologies and Development (3)
AIT 618	Client/Server-Side Programming on the Web (3)
AIT 715	Case Studies in Internet Applications (3)

**Networking Technologies**

AIT 600	Information Technology Infrastructure (3)
AIT 610	Systems Development Process (3)
AIT 620	Business Data Communications (3)
AIT 622	Networking Architectures and Protocols (3)
AIT 720	Case Studies in Networking Applications (3)

**Software Engineering**

AIT 600	Information Technology Infrastructure (3)
AIT 610	Systems Development Process (3)
AIT 624	Software Engineering Fundamentals (3)
AIT 626	Advanced Topics in Software Engineering (3)
AIT 725	Case Studies in Software Engineering (3)

**Electives (18 credits)**

Students must complete six graduate-level elective courses. A maximum of two elective courses may be in any of the following disciplines: accounting, computer science, human resource development, management, mathematics and technical writing. At least four of the elective courses must be graduate-level AIT courses from the following list:

AIT 612	Information Systems Vulnerability and Risk Analysis (3)
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AIT 614	Network Security (3)
AIT 616	Fundamentals of Web Technologies and Development (3)
AIT 618	Client/Server-Side Programming on the Web (3)
AIT 620	Business Data Communications (3)
AIT 622	Networking Architectures and Protocols (3)
AIT 624	Software Engineering Fundamentals (3)
AIT 626	Advanced Topics in Software Engineering (3)
AIT 628	IT and Business Strategy (3)
AIT 630	IT Project Management (3)
AIT 632	Database Management Systems (3)
AIT 670-679	Special Topics (3)
AIT 695	Independent Study in AIT (3)
AIT 732	Advanced Database Management Systems (3)

## DATABASE MANAGEMENT SYSTEMS CERTIFICATE

The Graduate Certificate in Database Management Systems covers the study, design and development of database systems and discusses the major issues in managing a large database system. This program provides graduate-level education in IT for students wanting to make progress in the high-tech work environment or preparing to enter the high-tech workforce. This course of study can be completed as a stand-alone graduate certificate or applied to the M.S. degree program in Applied Information Technology. The program is intended for students who have a bachelor's degree in a computing related field and are working as programmers, software engineers, system analysts, etc. who will enter the program for advanced study. The program may also be of interest to:

- Persons who do not have a bachelor's degree in the field, but who are currently employed in the IT field and are seeking additional academic studies for professional growth or to advance their career.

- Persons who have a bachelor's degree in a discipline other than IT who are seeking preparation for careers in this field.

For additional information, contact the program director, Dr. Ali Behforooz, 410-704-4909, CAIT@towson.edu, www.towson.edu/CAIT.

## Certificate Requirements

AIT 600	Information Technology Infrastructure (3)
AIT 610	Systems Development Process (3)
AIT 632	Database Management Systems (3)
AIT 732	Advanced Database Management Systems (3)
AIT 735	Case Studies in Database Management Systems (3)

## INFORMATION SECURITY AND ASSURANCE CERTIFICATE

The Graduate Certificate in Information Security and Assurance covers the study, design, development, implementation and support of computer-based information systems with regard to securing information. This program provides graduate-level education in IT for students preparing to enter the high-tech work force and those already in the work force who wish to update and enhance their skills. This course of study can be completed as a stand-alone graduate certificate or applied to the M.S. degree program in Applied Information Technology. The program is intended for students who have a bachelor's degree in information technology, computer science, computer information systems, or a related field, who will enter the program for advanced studies. The program may also be of interest to:

- Persons who do not have a bachelor's degree in the field, but who are currently employed in the IT field and are seeking additional academic studies for professional growth or to advance their career.
- Persons who have a bachelor's degree in a discipline other than IT who are seeking preparation for careers in this field.

For additional information, contact the program director, Dr. Ali Behforooz, 410-704-4909, CAIT@towson.edu, www.towson.edu/CAIT.

### Certificate Requirements

AIT 600	Information Technology Infrastructure (3)
AIT 610	Systems Development Process (3)
AIT 612	Information Systems Vulnerability and Risk Analysis (3)
AIT 614	Network Security (3)
AIT 710	Case Studies in Information Security (3)

### INFORMATION SYSTEMS MANAGEMENT CERTIFICATE

The Graduate Certificate in Information Systems Management covers the study, design, development, implementation and support of computer-based information systems. This program provides graduate-level education in IT for students preparing to enter the high-tech work force and those already in the work force who wish to update and enhance their skills. The course of study can be completed as a stand-alone graduate certificate or applied to the M.S. degree program in Applied Information Technology. This program is intended for students who have a bachelor's degree in information technology, computer science, computer information systems or a related field, who will enter the program for advanced studies. The program may also be of interest to:

- Persons who do not have a bachelor's degree in the field, but who are currently employed in the IT field and are seeking additional academic studies for professional growth or to advance their career.
- Persons who have a bachelor's degree in a discipline other than IT who are seeking preparation for careers in this field.

For additional information, contact the program director, Dr. Ali Behforooz, 410-704-4909, CAIT@towson.edu, www.towson.edu/CAIT.

### Certificate Requirements

AIT 600	Information Technology Infrastructure (3)
AIT 610	Systems Development Process (3)
AIT 628	IT and Business Strategy (3)
AIT 630	IT Project Management (3)
AIT 730	Case Studies in Information Systems Management (3)

### INTERNET APPLICATION DEVELOPMENT CERTIFICATE

The Graduate Certificate in Internet Application Development covers the study, design, development, implementation and support of computer-based information systems for the World Wide Web. This program provides graduate-level education in IT for students preparing to enter the high-tech work force and those already in the work force who wish to update and enhance their skills. This course of study can be completed as a stand-alone graduate certificate or applied to the M.S. degree program in Applied Information Technology. The program is intended for students who have a bachelor's degree in information technology, computer science, computer information systems or a related field, who will enter the program for advanced studies. The program may also be of interest to:

- Persons who do not have a bachelor's degree in the field, but who are currently employed in the IT field and are seeking additional academic studies for professional growth or to advance their career.
- Persons who have a bachelor's degree in a discipline other than IT who are seeking preparation for careers in this field.

For additional information, contact the program director, Dr. Ali Behforooz, 410-704-4909, CAIT@towson.edu, www.towson.edu/CAIT.

### Certificate Requirements

AIT 600	Information Technology Infrastructure (3)
AIT 610	Systems Development Process (3)

## 110 DEGREE AND CERTIFICATE PROGRAMS

AIT 616	Fundamentals of Web Technologies and Development (3)
AIT 618	Client/Server-side Programming on the Web (3)
AIT 715	Case Studies in Internet Applications (3)

AIT 622	Networking Architectures and Protocols (3)
AIT 720	Case Studies in Networking Applications (3)

### SOFTWARE ENGINEERING CERTIFICATE

The Graduate Certificate in Software Engineering covers the study, design, development, implementation and support of computer-based information systems. This program provides graduate-level education in IT for students preparing to enter the high-tech work force and those already in the work force who wish to update and enhance their skills. The course of study can be completed as a stand-alone graduate certificate or applied to the M.S. degree program in Applied Information Technology. The program is intended for students who have a bachelor's degree in information technology, computer science, computer information systems or a related field, who will enter the program for advanced studies. The program may also be of interest to:

- Persons who do not have a bachelor's degree in the field, but who are currently employed in the IT field and are seeking additional academic studies for professional growth or to advance their career.
- Persons who have a bachelor's degree in a discipline other than IT who are seeking preparation for careers in this field.

For additional information, contact the program director, Dr. Ali Behforooz, 410-704-4909, CAIT@towson.edu, www.towson.edu/CAIT.

### Certificate Requirements

AIT 600	Information Technology Infrastructure (3)
AIT 610	Systems Development Process (3)
AIT 624	Software Engineering Fundamentals (3)
AIT 626	Advanced Topics in Software Engineering (3)
AIT 725	Case Studies in Software Engineering (3)

### NETWORKING TECHNOLOGIES CERTIFICATE

The Graduate Certificate in Networking Technologies covers the study, design, development, implementation and support of computer-based information systems with regard to sharing information over computer-based systems. This program provides graduate-level education in IT for students preparing to enter the high-tech work force and those already in the work force who wish to update and enhance their skills. This course of study can be completed as a stand-alone graduate certificate or applied to the M.S. degree program in Applied Information Technology. The program is intended for students who have a bachelor's degree in information technology, computer science, computer information systems or a related field, who will enter the program for advanced studies. The program may also be of interest to:

- Persons who do not have a bachelor's degree in the field, but who are currently employed in the IT field and are seeking additional academic studies for professional growth or to advance their career.
- Persons who have a bachelor's degree in a discipline other than IT who are seeking preparation for careers in this field.

For additional information, contact the program director, Dr. Ali Behforooz, 410-704-4909, CAIT@towson.edu, www.towson.edu/CAIT.

### Certificate Requirements

AIT 600	Information Technology Infrastructure (3)
AIT 610	Systems Development Process (3)
AIT 620	Business Data Communications (3)

## BIOLOGY

Degree: Master of Science

Program Directors:

Gail Gasparich

410-704-4515

ggasparich@towson.edu

Joel Snodgrass

410-704-5033

jsnodgrass@towson.edu

The Master of Science degree in Biology is intended to provide students with advanced training in subdisciplines of biology. Students may obtain a degree through a combination of course work and the completion of a major research project, the results of which are prepared for publication in the form of a thesis. Students in the thesis track will concentrate their course work and research efforts in one of two areas, 1.) Molecular, Cellular and Microbiology or 2.) Organismal Biology and Ecology. The thesis track provides the necessary background and experience for those who plan further study for their Ph.D., for those whose employment requires research training, and for those who wish to teach in community colleges. Graduate teaching and research assistantships are awarded on a competitive basis to full-time thesis students. Students may choose alternatively to obtain a degree entirely through course work and, optionally, a small research project. This non-thesis track is designed for those who want a broader background in biology, including secondary school teachers. A diverse course offering is available in the evening to accommodate working students.

Greater Baltimore is a center of high technology and biomedical research. In addition, the region's rapid growth and development have stimulated concerns about environmental issues and placed strains on the educational system. As a consequence, graduates with master's-level training are sought by research facilities and private laboratories, environmental consulting firms, zoos and aquaria, and public and private secondary schools.

## Admission Requirements

- A minimum of 24 undergraduate credits in biology.
- Course work in general chemistry, organic chemistry and physics.
- A grade point average (GPA) of 3.00 in previous biology course work. An overall GPA (i.e., in biology and all other courses) of 3.00 is required for full admission. All GPA calculations for admission are based upon the last 60 credits of undergraduate and post-baccalaureate study. Students lacking key prerequisites and/or having a GPA of 2.50-2.99 may be given conditional admission. Any student admitted conditionally may be required to make up deficiencies in prerequisites and/or achieve a GPA of 3.00 in their first 9 graduate credits taken at Towson University.

## Application to the Program

- Send to the Graduate School, Towson University, 8000 York Rd., Towson MD 21252-0001: General application form, application fee, and official transcripts.
- Send to the graduate program director, Department of Biological Sciences, Towson University, 8000 York Rd., Towson MD 21252-0001: Supplemental application for M.S. degree in Biology (available from the program director at address above or at the departmental Web site or the Graduate School Web site) and three letters of recommendation from instructors or supervisors familiar with the student's record, aptitude and potential for graduate work.
- Students who are applying to do thesis research must also submit scores from the Graduate Record Examination-General Test to the biology graduate program director at the above address. Scores from GRE Subject Examination in Biology are recommended but not required. No GRE scores are required for students applying to do a non-thesis degree.

### Application Deadlines

The deadlines for thesis students requesting Graduate Assistantships are:

- March 15 for the following Fall semester
- October 15 for the following Spring semester

The deadlines for non-thesis and thesis students not requesting a Graduate Assistantship are:

- March 15 for the following Summer semester
- June 15 for the following Fall semester
- October 15 for the following Spring semester

### Degree Requirements

Thesis and non-thesis students are required to complete 30 credits of course work. Students may take no more than two courses at the 500 level and no more than two courses in disciplines outside of biology (with the exception of ENVS 604), and only with the approval of the student's advisory committee.

Students in the thesis track must concentrate course work and research efforts in one of two areas: 1.) Molecular, Cellular and Microbiology, or 2.) Organismal Biology and Ecology. Thesis students must take a minimum of 9 credits of course work in one of these two areas. A list of appropriate courses is available from the program director. All course work must be approved by the student's thesis advisory committee. Appropriate course work will be based on the student's undergraduate background, area of research and career objectives. A minimum of 16 of the 24 non-thesis credits must come from courses at the 600-700 level. Thesis students may count no more than 3 combined credits from BIOL 701 and 703 toward a degree. All thesis students must take BIOL 796 Professional Aspects of Biology and BIOL 797 Graduate Seminar. Thesis students earn 6 credits (as BIOL 897 Thesis ) upon completion and successful defense of the thesis. All thesis track students must complete and successfully defend a thesis before the degree is awarded.

Students in the non-thesis track are not required to concentrate course work in a specific

sub-discipline. However, non-thesis students will select course work with assistance and approval of an advisory committee of Biology Graduate Faculty. Course selections will be based on the non-thesis student's undergraduate background, purpose for pursuing the M.S. degree, and current or planned career. A minimum of 22 of the 30 required credits must come from courses at the 600-700 levels. All students must take BIOL 797 Graduate Seminar. Non-thesis students may count no more than 6 combined credits from BIOL 701 and 703 toward a degree.

### CHEMISTRY CERTIFICATE

Program Director: Boon Loo

410-704-3055

bloo@towson.edu

The Post-baccalaureate Chemistry Certificate is designed for certified teachers already possessing a bachelor's degree in a scientific area who wish to gain the content knowledge necessary to teach chemistry. Program courses are an integrated lecture-laboratory format and include environmental chemistry, experimental design, computer use, real-life applications, analytical instrument techniques and lab safety training. The goal of this program is to develop teachers capable of providing their students with the background necessary to succeed in college-level courses. After completing this 19-credit program of study, chemistry may be added as an endorsement to an existing teaching certification. The courses are designed to provide teachers with a solid academic background in the principles of modern chemistry and the background necessary to develop experiments that may be included in their own courses with the equipment and chemicals available in their schools. Teachers in this program must complete 19 credits of the required chemistry courses as listed below. Courses meet in the evenings during the spring and fall semesters only and are not offered in the summer.



### Admission Requirements

- A bachelor's degree in any area of science, which must include one year of General Chemistry with laboratory.
- Maryland State Department of Education teacher certification.

### Certificate Requirements (18 credits)

- CHEM 585 Principles of Chemistry (3)\*  
 CHEM 586 Laboratory Experiment Design (3)  
 CHEM 588 Organic Chemistry Concepts (3)  
 CHEM 601 Biochemistry and Molecular Biology (3)  
 CHEM 602 Medicinal Chemistry (3)  
*or*  
 CHEM 610 Applications of Analytical Chemistry (3)  
 CHEM 641 Physical Chemistry Concepts (4)

### Elective Courses (0-6 credits)

- CHEM 505 Introduction to Research in Chemistry (1-3)  
 CHEM 562 Chemical and Bacterial Studies on Water Pollution (3)  
 CHEM 563 Chemistry of Dangerous Drugs (3)  
 CHEM 568 Forensic Chemistry (3)  
 CHEM 601 Biochemistry and Molecular Biology (3)  
 CHEM 602 Medicinal Chemistry (3)  
 CHEM 603 Inorganic Materials Chemistry (3)  
 CHEM 610 Applications of Analytical Chemistry (3)  
 CHEM 645 Molecular Spectroscopy (3)  
 ENVS 580 Chemical Toxicology (3)  
 ENVS 602 Environmental Chemistry (3)

\*Requirement may be met by competency exam

### COMPUTER SCIENCE

Degree: Master of Science  
 Program Director: Yanggon Kim  
 410-704-3782  
 ykim@towson.edu

This program provides a comprehensive approach to advanced study in computer science. It also prepares professionally responsible individuals to be capable of holding a variety of scientific and technical positions in the area of computing applications.

Such jobs are found in research and development departments; in federal, state and local government agencies; in computer software development companies; in computer security companies; in Internet, e-commerce and Web development companies; and in companies involved in the development of hardware and software products for applications in aerospace, biological, chemical, medical and genetic research. Graduates will also be prepared for further work at the doctoral level.

The main objectives of the program are: 1) to give students the opportunity to study and attain knowledge in current computer science specialties; 2) to develop student ability to apply computer science problem-solving methods and tools to realistic research and industry-related problems; 3) to equip students with the tools and knowledge necessary for contributing to the needs of a high-technology society through preparation for continued learning; 4) to prepare students for advanced graduate work in computer science.

### Admission Requirements

- A baccalaureate degree in computer science or a baccalaureate degree in any other field and completion of one to three preparatory courses from among MATH 363, COSC 304, COSC 305, as determined by the graduate program director.
- An undergraduate grade point average of 3.00 for full admission or 2.50 for conditional admission are required. All GPA cal-

culations for admission are based upon the last 60 credits of undergraduate and post-baccalaureate study. For international students, a TOEFL score of 550 for full admission and 500 for conditional admission is required.

### Prerequisite Courses

MATH 363	Mathematical Structures for Computer Science (4)
COSC 304	Fundamentals of Computer Science (6)
COSC 305	Fundamentals of Data Structures and Algorithm Analysis (6)

Both MATH 363 and COSC 304 can be taken together in the same semester; COSC 305 must be taken after successful completion of COSC 304. These prerequisites are not required for students who have a baccalaureate degree in Computer Science. The MATH 363 course is not required for students who have an engineering, mathematics or computer science baccalaureate degree. Students with no engineering, mathematics or computer science degree background must take all three prerequisites.

A grade of B or better is required for the successful completion of any prerequisite course.

Students may repeat prerequisite courses no more than two times to be eligible to take graduate-level courses.

### Degree Requirements

- Satisfactory completion of any assigned preparatory courses. (This only applies to students who do not have an undergraduate degree in computer science.)
- Satisfactory completion of the requirements for the M.S. in Computer Science, or M.S. in Computer Science with the Software Engineering/Computer Security/E-Commerce Track. At least 24 credits of degree work must be at 600 to 800 levels.
- Earn a grade of B or better in all required courses listed in Group A. Courses may be repeated once to satisfy this requirement.

### M.S. in Computer Science (33 credits)

#### Group A-Required Courses (15-18 credits)

COSC 519	Operating Systems Principles (3)
COSC 578	Database Management Systems I (3)
COSC 600	Advanced Data Structures and Algorithm Analysis (3)
COSC 650	Computer Networks (3)
COSC 880	Graduate Project/ Internship (3) or
AIT 880	Graduate Project (3) or
COSC 897	Computer Science Thesis (6)

#### Group B-Elective Courses (15-18 credits)

Any 500/600/700-level COSC courses that are not taken in Group A will be counted as electives. Note that students may not count more than 9 credits of 500-level courses toward their graduation requirements.

### Software Engineering Track (33 credits)

#### Group A-Required Courses (21-24 credits)

COSC 519	Operating Systems Principles (3)
COSC 600	Advanced Data Structures and Algorithm Analysis (3)
COSC 609	Software Project Management (3)
COSC 612	Software Engineering I (3)
COSC 614	Software Engineering II (3)
COSC 716	Object-Oriented Methodology (3)
COSC 880	Graduate Project/ Internship (3) or
AIT 880	Graduate Project (3) or
COSC 897	Computer Science Thesis (6)

### Group B—Elective Courses (9–12 credits)

Any 500/600/700-level COSC courses that are not taken in "Group A" will be counted as electives. Note that students may not count more than 9 credits of 500-level courses toward their graduation requirements.

### M.S. in Computer Science: Computer Security Track (33 credits)

#### Group A—Core Courses (15–18 credits)

Same as M.S. in Computer Science.

#### Group B—Required Courses (15 credits)

- COSC 645 Applied Cryptography (3)
- COSC 647 Application Software Security (3)
- COSC 683 Security and Internet Algorithms (3)
- COSC 734 Network Security (3)
- COSC 745 Advanced Topics in Computer Security (3)

#### Group C—Elective Courses (3 credits)

Any 600/700-level COSC courses that are not taken in "Group A" will be counted as electives.

**Project/Thesis Requirement:** COSC 880/Internship/AIT 880 project or COSC 897. Thesis must be in the computer security area.

### M.S. in Computer Science: E-Commerce Track (33 credits)

#### Group A—Core Courses (15–18 credits)

Same as M.S. in Computer Science.

#### Group B—Required Courses (15 credits)

- COSC 641 Fundamentals of E-Commerce (3)
- COSC 612 Software Engineering I (3)

- COSC 617 Advanced Web Development (3)
- COSC 643 Internet Supply Chain Management (3)
- COSC 741 E-Commerce Case Studies (3)

#### Group C—Elective Courses (3 credits)

Any 600/700-level COSC courses that are not taken in "Group A" or "Group B" will be counted as electives.

**Project/Thesis Requirement:** COSC 880/Internship/AIT 880 project or COSC 897. Thesis must be in the e-commerce area.

### Transfer Courses

A student can transfer up to two graduate level courses from a recognized institution with the approval of the graduate program director.

### ENVIRONMENTAL SCIENCE

Degree: Post-baccalaureate Certificate and Master of Science

Program Director: Jane Wolfson  
410-704-4920  
jwolfson@towson.edu  
www.towson.edu/ess

The graduate program in Environmental Science is an interdisciplinary program that focuses on environmental issues and problems faced by metropolitan areas. The program is for individuals who are in the environmental work force, are looking to enter the environmental work force, or who are public school teachers who wish to expand their knowledge of environmental sciences of metropolitan areas so they can teach in this specialty. There are four areas of concentration in the program: Water Resource Management and Assessment, Biological Resource Management, Wetland Assessment and Management, and Environmental Spatial Analysis. Program graduates are well prepared to work in the environmental consulting area, education, industry, federal, state and county environmental agencies, and nonprofit environmental groups.

### Admission Requirements

- Admission to the Graduate School.
- Undergraduate degree (B.A. or B.S.) in Biology, Chemistry, Geology or Environmental Science with a minimum GPA of 3.00 for full admission, and a minimum GPA of 2.50 for conditional admission.
- Students with an undergraduate degree in another area are required to demonstrate completion of the following courses with a minimum GPA of 3.00:
  - two semesters of introductory biology with laboratory
  - two semesters of introductory chemistry with laboratory
  - one semester of statistics and one semester of calculus
- or
- two semesters of calculus
- Completion of the supplemental application form, which can be obtained from the Graduate School, 410-704-2025, or online at [www.towson.edu/ess/applying.htm](http://www.towson.edu/ess/applying.htm).
- Letters of recommendation, as described in the supplemental application form, and the Graduate School recommendation form from three individuals in a position to evaluate your academic potential in this field.

### M.S. Degree Requirements

All M.S. students complete 30 credits of graduate work. No more than three courses may be at the 500 level. In addition to completing the core courses listed below, all students choose a concentration and select their elective courses from among those courses appropriate for that concentration (see below).

#### Option 1: Master of Science with Thesis (30 credits)

Four core courses, electives appropriate to the concentration (no more than three 500-level courses) and ENVS 897 or two consecutive semesters of ENVS 898.

#### Option 2: Master of Science without Thesis (30 credits)

Four core courses, electives appropriate to the concentration (no more than three 500-level courses) and ENVS 798.

### Certificate Requirements (18 credits)

All students wishing to receive a certificate complete a minimum of 18 credits of graduate work as follows: Two core courses and additional electives, selected in consultation with an adviser, from one concentration. No more than three 500-level courses can be counted toward the certificate.

### Required Core (15 credits)

- |          |                                      |
|----------|--------------------------------------|
| ENVS 601 | Topics in Environmental Geology (4)  |
| ENVS 602 | Environmental Chemistry (4)          |
| ENVS 603 | Environmental Law and Regulation (3) |
| ENVS 604 | Ecosystems Ecology (4)               |

### M.S. Culmination Courses

- |          |                        |
|----------|------------------------|
| ENVS 798 | Research Practicum (3) |
|          | or                     |
| ENVS 897 | Research Thesis (6)    |
|          | or                     |

Two consecutive semesters of ENVS 898 Research Thesis (3)

### Electives

In addition to completing the required core, students choose a concentration listed below and select electives from within it.

### Water Resource Management and Assessment Concentration

- |          |   |
|----------|---|
| BIOL 506 | Limnology (4)                           |
| BIOL 555 | Fish Biology (4)                        |
| BIOL 601 | Current Topics in Biology (3)*          |
| BIOL 609 | Aquatic Community Analysis (4)          |
| BIOL 610 | Population and Community Biology (3)    |
| BIOL 653 | Biology of Freshwater Invertebrates (4) |

- CHEM 562 Chemical and Bacteriological Studies on Water Pollution (3)  
 ENVS 630 Concepts of Environmental Engineering (3)  
 ENVS 635 Wetlands Identification, Conservation and Delineation (4)  
 ENVS 640 Ecotoxicology (3)  
 ENVS 645 Fluvial Geomorphology and Hydrology (4)  
 ENVS 650 Aqueous Geochemistry (4)  
 GEOG 518 Introduction to Geographic Information Systems (3)  
 GEOG 523 GIS Application (3)  
 GEOG 587 Environmental Impact Assessment (3)  
 GEOG 631 Remote Sensing (3)  
 GEOG 672-9 Special Topics [i.e., Water Resources Management] (3)\*  
 MATH 545 Sampling Techniques (3)  
 MATH 575 Mathematical Models (3)  
 MATH 630 Statistics: An Integrated Approach (4)  
 MATH 632 Computational Stochastic Modeling (3)

### **Biological Resources Management Concentration**

- BIOL 506 Limnology (4)  
 BIOL 510 Conservation Biology (4)  
 BIOL 535 Plant Ecology (4)  
 BIOL 555 Fish Biology (4)  
 BIOL 556 Ornithology (4)  
 BIOL 561 Entomology (4)  
 BIOL 567 Herpetology (4)  
 BIOL 601 Current Topics in Biology (3)\*  
 BIOL 610 Population and Community Biology (3)  
 BIOL 635 Physiological Plant Ecology (3)  
 BIOL 731 Plant Community Ecology (3)  
 ENVS 635 Wetlands Identification, Conservation and Delineation (4)  
 ENVS 640 Ecotoxicology (3)  
 ENVS 645 Fluvial Geomorphology and Hydrology (4)  
 GEOG 503 Soils and Vegetation (3)  
 GEOG 587 Environmental Impact Assessment (3)  
 MATH 545 Sampling Techniques (3)  
 MATH 575 Mathematical Models (3)

- MATH 630 Statistics: An Integrated Approach (4)  
 MATH 632 Computational Stochastic Modeling (3)

### **Wetlands Assessment and Management Concentration**

- BIOL 510 Environmental Conservation (4)  
 BIOL 518 Microbiology (4)  
 BIOL 535 Plant Ecology (4)  
 BIOL 601 Current Topics in Biology (3)\*  
 BIOL 609 Aquatic Community Analysis (4)  
 BIOL 635 Physiological Plant Ecology (3)  
 BIOL 731 Plant Community Ecology (3)  
 ENVS 630 Concepts of Environmental Engineering (3)  
 ENVS 635 Wetlands Identification, Conservation and Delineation (4)  
 ENVS 645 Fluvial Geomorphology and Hydrology (4)  
 ENVS 650 Aqueous Geochemistry (4)  
 GEOG 518 Introduction to Geographic Information Systems (3)  
 GEOG 523 GIS Application (3)  
 GEOG 587 Environmental Impact Assessment (3)  
 GEOG 672-9 Special Topics [i.e., Water Resources Management] (3)\*  
 MATH 545 Sampling Techniques (3)  
 MATH 575 Mathematical Models (3)  
 MATH 630 Statistics: An Integrated Approach (4)  
 MATH 632 Computational Stochastic Modeling (3)

### **Environmental Spatial Analysis Concentration**

- BIOL 601 Current Topics in Biology (3)\*  
 ENVS 635 Wetlands Identification, Conservation and Delineation (4)  
 ENVS 645 Fluvial Geomorphology and Hydrology (4)  
 GEOG 503 Soils and Vegetation (3)  
 GEOG 516 Quantitative Methods in Geography (3)  
 GEOG 518 Introduction to Geographic Information Systems (3)  
 GEOG 523 GIS Application (3)  
 GEOG 557 Studies in Natural Hazards (3)

- GEOG 587 Environmental Impact Assessment (3)  
 GEOG 631 Remote Sensing (3)  
 GEOG 672-9 Special Topics [i.e., Water Resources Management] (3)\*  
 GEOL 515 Hydrogeology (4)  
 MATH 545 Sampling Techniques (3)  
 MATH 575 Mathematical Models (3)  
 MATH 630 Statistics: An Integrated Approach (4)  
 MATH 632 Computational Stochastic Modeling (3)

\*Courses offered under this number might be appropriate for this concentration. Check with the director.

## MATHEMATICS EDUCATION

Degree: Master of Science

Program Director: Reza Sarhangi

410-704-4922

gsarhangi@towson.edu

The Master of Science in Mathematics Education program at Towson University provides mathematics teachers with advanced study in mathematics, mathematics education and general education. The program offers teachers additional experience in higher-level mathematics to enhance their teaching with additional depth and breadth of content. At the same time, it strengthens their background in the school mathematics curriculum, instructional practices, assessment and technology. It also provides them a relevant way of satisfying their in-service requirements for professional advancement.

The program offers two tracks: Secondary School Track and Middle School Track.

### Secondary School Track

The Secondary School Track is open to certified secondary mathematics teachers with a strong mathematics background. Students take required and elective courses in mathematics content, mathematics education and general areas of education.

It is expected that graduates of this program will become leaders in mathematics education as master teachers, curriculum

developers, mathematics supervisors, and other positions that improve the teaching of mathematics in secondary schools. The special strength of this program is the opportunity to study higher mathematics content without leaving the field of school mathematics. The program was designed with on-the-job teachers in mind, with part-time studies in the evenings and summers available; however, full-time students are also welcome.

### Middle School Track

The Middle School Track is designed to target the current middle school mathematics teachers who are elementary school certified. Many of these teachers only took mathematics courses required for elementary school certification. It is clear that such a limited mathematics preparation is not sufficient for teaching middle school mathematics.

The primary components of this program are both mathematics content and mathematics education courses. It is clear that middle school mathematics teachers must have a strong mathematics preparation. Moreover, middle school mathematics teachers need to understand deeply the mathematics they teach. Middle school mathematics teachers also need to be lifelong mathematics learners. Moreover, they should learn mathematics concepts and skills that are meaningful and taught in the manner that reflects exemplary mathematics teaching.

### Admission Requirements

Applicants must meet the general requirements for graduate study outlined in the Towson University *Graduate Catalog*. The applicant must possess current certification for teaching secondary school mathematics for the Secondary School Track or teaching elementary school for the Middle School Track. In some circumstances, which are determined by the director of the program, an applicant's recent two years documented full-time teaching experience may replace the certificate requirement. For the Secondary School Track, the applicant should have an undergraduate degree (or M.A.T.) in mathe-

matics with a secondary education concentration or the equivalent, with a minimum undergraduate grade point average of 3.00 for full admission and 2.50 for conditional admission. For the Middle School Track, the applicant should have an undergraduate degree in Elementary Education or the equivalent with a minimum undergraduate grade point average of 3.00 for full admission and 2.50 for conditional admission. All GPA calculations for admission are based upon the last 60 credits of undergraduate and post-baccalaureate study.

### Degree Requirements

The student is required to successfully complete a total of at least 36 credits of course work (with no more than 9 credits below the 600 level), as outlined below.

#### Section A: Core Requirement Courses in Mathematics Education, School Mathematics, and Pedagogy

Students complete all three courses in this category:

MATH 602	Cultural and Philosophical Background of Mathematics (3)
MATH 626	Technology in School Mathematics Teaching and Learning (3)
MATH 627	Curriculum Issues in Secondary School Mathematics (3)

#### Section B: Core Requirement Courses in General Education and Pedagogy

Students in the Secondary School Track complete a total of four relevant courses to their studies, and students in the Middle School Track complete a total of three relevant courses to their studies in the College of Education or other colleges with the approval of the director of the graduate program in Mathematics Education. The following are examples of such courses:

EDUC 560	Teaching in a Multicultural/Multiethnic Society (3)
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EDUC 603	School Law (3)
EDUC 605	Research and Information Technology (3)
EDUC 614	Assessment and Evaluation in Education (3)
EDUC 734	The Teacher as Researcher (3)
EDUC 761	Research in Education (3)
ISTC 702	Educational Leadership and Technology (3)
SCED 621	Individualizing Learning in the Secondary School (3)
SCED 625	Teaching in the Middle School (3)
SCED 635	Discipline and Classroom Management in Secondary Schools (3)
SCED 643	The Administration of the Secondary School (3)
SCED 649	Teaching Gifted Students in the Secondary School (3)
SCED 651	Techniques for Teaching Special-Needs Adolescents and Adults (3)
SCED 683	Staff Development and Supervisory Practices in Secondary Schools (3)
PSYC 651	Techniques of Intervention (3)
PSYC 687	Advanced Experimental Design I (3)
PSYC 688	Advanced Experimental Design II (3)

#### Section C: Mathematics Foundation

I. Secondary School Track: Students complete four courses, one course from each of the following categories, and one additional elective from any of these categories:

##### *Algebra/Calculus*

MATH 563	Linear Algebra (3)
MATH 565	Theory of Numbers (4)
MATH 568	Algebraic Structures (4)
MATH 576	Introductory Real Analysis (4)
MATH 635	Applied Numerical Analysis (3)
MATH 636	Linear and Nonlinear Programming (3)
MATH 651	Mathematics of Fuzzy Logic (3)
MATH 667	Algebra of Symmetries (3)
MATH 677	Advanced Mathematical Modeling (3)

*Geometry*

- MATH 551 Graph Theory (3)  
 MATH 557 Differential Geometry (3)  
 MATH 653 Topics in Geometry (3)  
 MATH 671 Chaotic Dynamics and Fractal Geometry (3)

*Probability/Statistics/Stochastics*

- MATH 531 Probability (4)  
 MATH 532 Mathematical Statistics (4)  
 MATH 533 Applied Regression and Correlation and Analysis (3)  
 MATH 534 Nonparametric Statistical Methods (3)  
 MATH 630 Statistics – An Integrated Approach (4)  
 MATH 631 Topics in Probability (3)  
 MATH 632 Computational Stochastic Modeling (3)

**II. Middle School Track: Students complete the following five courses:**

- MTED 611 Algebra for Middle School Teachers (3)  
 MTED 612 Data Analysis for Middle School Teachers (3)  
 MTED 613 Mathematical Modeling for Middle School Teachers (3)  
 MTED 614 Calculus through Technology for Middle School Teachers (3)  
 MTED 615 Geometry for Middle School Teachers (3)

**Section D: Mathematics Methods**

**I. Secondary School Track:**

- MATH 625 Seminar in Mathematics Education for Secondary School Teachers (3)

**II. Middle School Track:**

- MTED 605 Middle School Mathematical Methods and Problem Solving (3)

**SCIENCE EDUCATION**

Degree: Master of Science

Program Directors:

Gail Gasparich

410-704-4515

ggasparich@towson.edu

Joel Snodgrass

410-704-5033

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The Master of Science in Science Education is designed to enhance the content knowledge and teaching skills of Maryland state high school science teachers. The program will prepare them for national board certification through the National Board for Professional Teaching Standards (NBPTS).

Educational objectives of this program are to: enhance the depth of content knowledge of students within the scientific discipline; train students in the practice of science, including the design and execution of controlled experiments, data analysis, knowledge application and reporting; provide the students with the most recent knowledge on best practices in teaching science, including recent advances in pedagogy, authentic assessment, the use of state and national standards, and the application of instructional technology.

A diverse course offering of primarily 600- and 700-level courses is available in the evening to accommodate working teachers.

Teachers may choose a Biology concentration or a Chemistry track under the Masters of Science Education program.

**General Admission Requirements**

- Secondary school teacher certification.
- Bachelor of Science degree in a science or a minimum of 24 undergraduate semester hours in science with course work in general chemistry, organic chemistry, mathematics and physics.
- GPA of 3.00 in previous science course work and an overall GPA of 3.00 is required for full admission. Students lacking key pre-requisites and/or having a GPA of 2.50-2.99 may be given conditional admission. Any



student admitted conditionally may be required to make up deficiencies in prerequisites and/or achieve a GPA of 3.00 in their first 9 graduate credits taken at Towson University.

- Three letters of recommendation from instructors or supervisors.
- A one-page statement of intent.

### General Degree Requirements

Students will obtain a non-thesis Master of Science degree through a combination of course work in scientific content areas and education, and optional research projects. Degree requirements consist of 36 semester hours of course work.

### BIOLOGY TRACK

#### Admission Requirements

- Secondary school teacher certification.
- Bachelor of Science degree in the biological sciences or a minimum of 24 undergraduate semester hours in biology with course work in general chemistry, organic chemistry, mathematics and physics.
- GPA of 3.00 in previous biology course work and an overall GPA of 3.00 is required for full admission. Students lacking key prerequisites and/or having a GPA of 2.50-2.99 may be given conditional admission. Any student admitted conditionally may be required to make up deficiencies in prerequisites and/or achieve a GPA of 3.00 in their first 9 graduate credits taken at Towson University.
- Three letters of recommendation from instructors or supervisors.
- A one-page statement of intent.

#### Degree Requirements

Students will obtain a non-thesis Master of Science degree through a combination of course work in scientific content areas and education, and optional research projects. Degree requirements consist of 36 semester hours of course work. No more than two courses may be taken at the 500 level. No more than one elective course outside the discipline con-

tent area will be counted toward the degree. Approval of the graduate director will be required before taking such an elective.

Students may earn credits for participation in optional research projects (BIOL 701 Non-Thesis Laboratory Research) and will be encouraged to do so with faculty at Towson University or through an external internship opportunity.

#### Required Courses (21-22 credits)

BIOL 602	Molecular Biology (3)
BIOL 604	Mechanisms of Animal Physiology (3)
BIOL 610	Population and Community Biology (3)
BIOL 797	Graduate Seminar (1)
SCIE 6xx	Assessment Strategies and Practices in Science (3)
SCED 647	Advanced Teaching and Learning Processes, Secondary (3)
ISTC 655	Media Design and Production (3)
SCED 781	Integrated Professional Practice Seminar (2)
	or
SCIE 7xx	Independent Study: National Board Certification (2)

#### Electives (14-15 credits)

Students must complete at least one course from each of the following three categories.

##### Category A: Organismal Biology Evolution and Ecology

BIOL 502	General Ecology (4)
BIOL 506	Limnology (4)
BIOL 507	Introduction to Paleontology (4)
BIOL 510	Environmental Conservation (4)
BIOL 511	Wildlife Biology (4)
BIOL 513	Evolution (3)
BIOL 530	Horticulture (4)
BIOL 531	Plant Morphology (4)
BIOL 532	Vascular Plant Taxonomy (4)
BIOL 535	Plant Ecology (4)
BIOL 539	Plant Anatomy (4)
BIOL 543	Freshwater Algae (4)
BIOL 549	Marine Botany (4)

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BIOL 553	Invertebrate Zoology (4)
BIOL 555	Fish Biology (4)
BIOL 556	Ornithology (4)
BIOL 561	Entomology (4)
BIOL 567	Herpetology (4)
BIOL 571	Animal Behavior (4)
BIOL 601	Current Topics in Biology (3) 1
BIOL 607	Physiological Animal Ecology (3)
BIOL 609	Aquatic Community Analysis (4)
BIOL 613	Animal Communication (3)
BIOL 635	Physiological Plant Ecology (3)
BIOL 636	Plant Physiological Ecology: Methods and Instrumentation (2)
BIOL 653	Biology of Freshwater Invertebrates (4)
BIOL 6xx	Behavioral Ecology (3)2
BIOL 6xx	Landscape Ecology (3)2
BIOL 6xx	Evolutionary Physiology (3)2
BIOL 6xx	Biostatistics, Data Analysis, and Interpretation (3)2
ENVS 604	Ecosystems Ecology (3)
BIOL 731	Plant Community Ecology (3)
BIOL 781	Recent Advances in Biology (3)1

### Category B: Physiology

BIOL 525	Dissection of the Upper Extremities (2)
BIOL 536	Plant Physiology (4)
BIOL 563	Animal Embryology (4)
BIOL 565	Mammalian Physiology (4)
BIOL 568	Endocrinology (3)
BIOL 569	Comparative Animal Physiology (4)
BIOL 601	Current Topics in Biology (3)1
BIOL 607	Physiological Animal Ecology (3)
BIOL 617	Molecular Mechanisms of Development (3)
BIOL 635	Physiological Plant Ecology (3)
BIOL 636	Plant Physiological Ecology: Methods and Instrumentation (2)
BIOL 651	Osmoregulation (3)
BIOL 606	Biochemical Adaptation (3)

BIOL 6xx	Evolutionary Physiology (3)2
BIOL 781	Recent Advances in Biology (3)1

### Category C: Cellular and Molecular Biology

BIOL 503	Advanced Genetics (3)
BIOL 505	Electron Microscopy (4)
BIOL 508	Cell Biology (4)
BIOL 515	Medical Microbiology (4)
BIOL 518	Microbiology (4)
BIOL 521	Immunology (4)
BIOL 528	Virology (3)
BIOL 560	Histology (4)
BIOL 585	Seminar in Microbiology and Cell Biology (1)
BIOL 601	Current Topics in Biology (3)1
BIOL 612	Molecular Ecology and Evolution (3)
BIOL 614	Applied Biotechnology (3)
BIOL 615	Pathogenic Microbiology (3)
BIOL 616	Membrane Biology (3)
BIOL 617	Molecular Mechanisms of Development (3)
BIOL 618	Molecular Medicine (3)
BIOL 6xx	Gene and Protein Expression (3)2
BIOL 781	Recent Advances in Biology (3)1

1 Category determined by graduate director.

2 These courses are in the development/approval process.

## CHEMISTRY TRACK

### Admission Requirements

- Secondary school teacher certification.
- Bachelor of Science degree in a natural science with course work in general chemistry, organic chemistry, mathematics and physics or a minimum of 24 undergraduate semester hours in a natural science in addition to course work in general chemistry, organic chemistry, mathematics and physics.
- GPA of 3.00 in previous science course work and an overall GPA of 3.00 is required for full admission. Students lacking key prerequisites and/or having a GPA of 2.50-2.99 may be given conditional admission. Any student admitted conditionally may be re-

quired to make up deficiencies in prerequisites and/or achieve a GPA of 3.00 in their first 9 graduate credits taken at Towson University.

- Three letters of recommendation from instructors or supervisors.
- A one-page statement of intent.

### Degree Requirements

Students will obtain a non-thesis Master of Science degree through a combination of course work in chemistry and education, and an optional research project. Degree requirements consist of 36 semester hours of course work. No more than three courses may be taken at the 500 level. No more than one elective course outside the discipline content area will be counted toward the degree. Approval of the graduate director will be required before taking such an elective.

Students may earn credits for participation in optional research projects (CHEM 505 Introduction to Research in Chemistry) and will be encouraged to do so with faculty at Towson University or through an external internship opportunity.

### Required Courses

#### Science Education and Professional Education (11 credits)

ISTC 655	Media Design and Production (3)
SCED 647	Advanced Teaching and Learning Processes, Secondary (3)
SCIE 6xx	Assessment Strategies and Practices in Science (3)
SCED 781	Integrated Professional Practice Seminar (2)
	or
SCIE 7xx	Independent Study: National Board Certification (2)

#### Chemistry (19-25 credits)

CHEM 585	Principles of Chemistry (3)*
CHEM 586	Laboratory Experiment Design (3)
CHEM 588	Organic Chemistry Concepts (3)*
CHEM 601	Biochemistry and Molecular Biology (3)
CHEM 602	Medicinal Chemistry (3)
CHEM 603	Inorganic Materials Chemistry (3)
CHEM 641	Physical Chemistry Concepts (4)
ENVS 602	Environmental Chemistry (3)

#### Electives (0-6 credits)

CHEM 505	Introduction to Research in Chemistry (1-3)
CHEM 562	Chemical and Bacterial Studies on Water Pollution (3)
CHEM 563	Chemistry of Dangerous Drugs (3)
CHEM 568	Forensic Chemistry
CHEM 610	Applications of Analytical Chemistry (3)
CHEM 645	Molecular Spectroscopy (3)
ENVS 580	Chemical Toxicology (3)

\*Requirement may be met by competency exam.

\*\*Depending on results of competency exam.



## INTERDISCIPLINARY PROGRAMS

Interdisciplinary programs have become an increasingly important part of Towson University's role as a premier metropolitan university. The rise of new interdisciplinary fields and revision of traditional curricula are reflected in the diverse group of programs listed here. These programs enhance the strong liberal arts and sciences core while preparing students for professional and applied fields. They also provide opportunities for new forms of student learning and build on the strengths of the faculty.

As Towson University strives to provide all of its students with the knowledge and skills for entry into the professional world, interdisciplinary programs will continue to expand throughout the curriculum. These programs will also help to create an environment that stimulates commitment to lifelong learning and allows for continued personal growth.

Donna Wagner, Chair  
Interdisciplinary Council  
dwagner@towson.edu

### **Certificate of Advance Study Program (post-master's)** Organizational Change

### **Master's Degree Programs**

Applied Gerontology  
Human Resource Development  
Humanities

*(See College of Liberal Arts section)*

Liberal and Professional Studies  
Social Science

*(See College of Liberal Arts section)*

Women's Studies

### **Post-baccalaureate Certificate Programs**

Applied Gerontology  
Family Studies  
Management and Leadership Development  
Women's Studies

### **Certification**

Post-master's Certification for Administrator I

## APPLIED GERONTOLOGY

Degree: Post-Baccalaureate Certificate and Master of Science

Program Director: Donna L. Wagner

410-704-4643

dwagner@towson.edu

The graduate program in Applied Gerontology prepares students to work in community settings serving the needs of the older population. The degree provides a basic foundation of knowledge, education and skills to students so they may move into positions in the fields of health, housing, social services or private sector enterprises serving older consumers.

### Admission Requirements

- A bachelor's degree with a minimum of 9 credits of upper-level course work in social sciences and/or experience working in the field of gerontology and/or course work or training in the field of gerontology.
- Two letters of recommendation.
- A one- to two-page essay discussing career goals and the planned focus of the graduate work.
- Meet the minimum requirements for admission to Towson University's Graduate School.

### Degree Requirements

- Completion of 36 credits with a cumulative GPA of 3.00 or better.
- Satisfactory completion of core required courses.

GERO 601	Seminar in Professional Gerontological Issues (3)
GERO 620	Legal Issues in Gerontological Practice (3)
GERO 610	Applied Gerontological Research Methods (3)
GERO 684	Gerontological Practicum (3) or
GERO 685	Independent Study in Gerontological Practice (3)
HLTH 619	Organizing Systems of Care for Chronically Ill and Physically Dependent Populations (3)
PSYC 610	Advanced Psychology of Aging (3)

- Satisfactory completion of 18 hours of graduate electives as approved by academic adviser.

## APPLIED GERONTOLOGY POST-BACCALAUREATE CERTIFICATE

The Graduate Certificate in Applied Gerontology consists of 18 hours of graduate work designed to complement a graduate program of study or as a stand-alone certificate.

### Admission Requirements

- A bachelor's degree with a minimum of 9 credits of upper-level course work in social sciences and/or experience working in the field of gerontology and/or course work or training in the field of gerontology
- Two letters of recommendation
- A one- to two-page essay discussing career goals and the planned focus of the graduate work
- Meeting the minimum requirements for admission to Towson University's Graduate School

### Certificate Requirements

- Completion of 18 credits with a cumulative GPA of 3.00 or better
- Satisfactory completion of 9 credits selected from the core courses required for the Master of Science in Applied Gerontology

GERO 601	Seminar in Professional Gerontological Issues (3)
GERO 620	Legal Issues in Gerontological Practice (3)
GERO 610	Applied Gerontological Research Methods (3)
GERO 684	Gerontological Practicum (3) or
GERO 685	Independent Study in Gerontological Practice (3)
HLTH 619	Organizing Systems of Care for Chronically Ill and Physically Dependent Populations (3)
PSYC 610	Advanced Psychology of Aging (3)

- Satisfactory completion of 9 credits of graduate electives as approved by academic adviser

## FAMILY STUDIES CERTIFICATE

Students interested in enhancing their knowledge of family-related issues might consider pursuing the Post-baccalaureate Certificate in Family Studies as they complete their master's degree. For more information, see the description of this graduate program in the Interdisciplinary Programs section of this catalog.

## FAMILY STUDIES

### POST-BACCALAUREATE CERTIFICATE

Program Director: Karen Goldrich Eskow  
410-704-5851

keskow@towson.edu

The Family Studies Post-baccalaureate Certificate is an interdisciplinary graduate program designed to enhance the education and subsequent practice of professionals working in school, health and community settings. Family focused care has evolved to be a key feature in health and education. The goals of the program offer professionals in a variety of psychological, sociological, education, and health related disciplines the opportunity to develop knowledge and skills in dealing with family related issues. The program is designed for professionals seeking to develop and advance their knowledge and skills in family studies. It aims to help professionals become more effective in helping people and their behavior in organizations. The program is especially beneficial for professionals who need to enhance their skills related to Public Law 99-457, which mandates that families become actively involved in developing education plans for their children with special needs.

The interdisciplinary design of the program allows students to benefit from a breadth of developmental experiences in case study research, family professional relationships, needs assessment, and program development that focus on collaborating with families in the community.

The program's flexibility makes it ideal to accommodate the demands of a working professional's schedule. The curriculum design is also intended to work with existing master's degree programs. Graduate programs that offer up to 9 credits of electives can integrate

this graduate certificate to enhance professional credentials.

This program can be completed in one to two years.

### Admission Requirements

- A baccalaureate degree.
- An undergraduate grade point average of minimum 3.00 (2.50 for conditional admission) based upon the last 60 credits and post-baccalaureate study. An admission exception policy is in place for eligible candidates with undergraduate degrees obtained at least 10 years ago.
- A resume sent directly to the program director.
- An interview with the program director.

### Certificate Requirements (15 credits)

FMST 601 Applied Family Relationships (3)

FMST 610 Family Professional Collaboration (3)

FMST 620 Project in Family Focused Program Development (3)

600-level Advanced Research Course (3) \*

500-600-level Elective (3) \*

\*Classes must be approved by the program director.

Programs that may be well suited to integrate the graduate certificate in Family Studies, within their 9 credits of electives, include:

- Applied Gerontology
- Liberal and Professional Studies
- Occupational Science
- Occupational Therapy (post-professional occupational therapists)
- Reading

Programs that may be well suited to integrate the graduate certificate in Family Studies, with some additional course work, include:

- Occupational Therapy (professional master's degree)
- School Psychology
- Special Education

## HUMAN RESOURCE DEVELOPMENT

Degree: Master of Science

Program Director: Larry Froman

410-704-4685

lfroman@towson.edu

The Master of Science in Human Resource Development (HRD) is an interdisciplinary program designed to provide students with specific knowledge and practical skills within a variety of human resource fields. The curriculum is designed to meet the needs of individuals with varied academic backgrounds and professional experience. The program emphasizes the application of theory and research to practical human resource issues within business, government, nonprofit organizations and education. The program consists of two tracks: General and Educational Leadership.

The General Track is designed for individuals seeking to enter the human resource field, mid-career professionals seeking opportunities for professional development and career advancements, working adults seeking a career change, and recent undergraduates who wish to pursue graduate study. Applicants do not need prior work experience in human resources to be eligible for admission.

The Educational Leadership Track is designed for certified teachers and other licensed professionals working in schools who aspire to become educational leaders and administrators at local and state levels. This interdisciplinary program is approved by the Maryland State Department of Education (MSDE) for those seeking certification as Administrator I.

### Admission Requirements

- No specific undergraduate major is required.
- The minimum GPA required for admission is 3.00. Students who have a minimum GPA of 2.80 may be considered for admission.
- Two letters of recommendation are required from individuals who can attest to the applicant's academic background, professional experience and/or personal

qualities. Those seeking admission to the Education Leadership Track must have one letter of recommendation from a school administrator.

- A one-page personal statement indicating why the applicant is interested in pursuing graduate study in human resource development or educational leadership.
- Completed application and admission credentials must meet the deadlines of March 1 for the fall semester and October 1 for the spring semester. Admission is granted on a competitive, space-available basis.

### Degree Requirements

- Students must take a minimum of 36 credits as prescribed in their program and selected in consultation with the adviser.
- Students must pass the comprehensive exam in Human Resource Development appropriate to their selected program track. Students are eligible to take the exam after they have completed a minimum of 24 credits and prior to exiting the program.
- Educational Leadership students must submit a portfolio in conjunction with their Internship experiences.

### General Track

#### Required Core (15 credits)

General Track students must take the following core courses listed below:

HRD 601	Introduction to Human Resources (3)
HRD 605	Applied Research in Human Resource Development (3)
HRD 627	Training and Development (3)
HRD 641	Change in the Workplace (3)
HRD 642	Organizational Behavior (3)

#### Core Electives (12-21 credits)

Students must take a minimum of 12 credits and may take a maximum of 21 credits.

Students must choose a minimum of four courses from the list below:

HRD 602	Leadership Theory and Practice (3)
HRD 603	Professional Development in HRD (3)



HRD 604	Compensation and Benefits Management (3)	HLTH 627	Health and Worker Performance (3)
HRD 629	Personnel Selection (3)	MNGT 602	Conflict Resolution in Commerce and Industry (3)
HRD 644	Team Building (3)	PSYC 610	Advanced Psychology of Aging (3)
HRD 679	Special Topics in Human Resource Development (3)	PSYC 524	Social Psychology (3)
ISTC 667	Instructional Development (3)	PSYC 567	Midlife Development (3)
ISTC 702	Educational Leadership and Technology (3)	PSYC 603	Human Learning (3)
MNGT 601	Administrative Theory and Practice (3)	PSYC 605	Counseling Techniques (3)
PSYC 606	Career Development (3)	PSYC 611	Developmental Psychology (3)
		PSYC 637	Counseling Strategies for Drug and Alcohol Abuse (3)
<b>Electives for General Track Students Only</b>		SOCI 543	Minority Groups (3)
Students can complete the 36-credit requirement of the program by selecting from any of the courses listed below in Groups 1 through 4.		SOCI 550	Sociology of Aging (3)
		SOCI 559	Social Gerontology (3)
		WMST 601	Women, Gender and the Workplace (3)
		HRD 695	Independent Study or Internship in HRD (3)
<b>Group 1: Training, Work Force Development and Technology</b>		<b>Group 3: Organizational and Career Development</b>	
COMM 518	Communication Training and Development (3)	COMM 519	Organizational Communication (3)
COSC 605	Human Factors and Computer Interaction (3)	COMM 522	Conference and Meeting Management (3)
EDUC 605	Research and Information Technology (3)	SOCI 531	Organizations (3)
HLTH 639	Education and Training in Health Care (3)	SOCI 534	Industrial Sociology (3)
ISTC 605	Web-Based Instruction in Education (3)	SOCI 539	Community Organizations (3)
ISTC 617	Distance Education in Theory and Practice (3)	SOCI 557	Social Welfare (3)
ISTC 633	Instructional Video (3)	HRD 695	Independent Study or Internship in HRD (3)
ISTC 655	Media Design and Production I (3)	<b>Group 4: Human Resource Management</b>	
ISTC 663	Applied Psychology of Learning (3)	ECON 540	Personnel Economics (3)
ISTC 687	Computer-Based Instruction (3)	ECON 541	Labor Economics and Labor Relations (3)
HRD 695	Independent Study or Internship in HRD (3)	HLTH 541	Legal and Ethical Issues in Health Administration (3)
<b>Group 2: Employee Relations</b>		HLTH 617	Health Administration (3)
COMM 601	Theories and Research in Intercultural Communication (3)	HLTH 647	Health Care Financial Management (3)
EDUC 560	Teaching in a Multicultural/Multiethnic Society (3)	MNGT 603	Human Resource Management in a Global Economy (3)
EDUC 646	Human Relations and the Professional (3)	MNGT 670-679	Special Topics in Management (3)
HLTH 570-579	Health Workshop (3)	HRD 695	Independent Study or Internship in HRD (3)

**Educational Leadership Track**

Program Adviser: Roxana DellaVecchia  
410-704-2422  
rdellavecchia@towson.edu

**Core Courses (12 credits)**

Educational Leadership students must take the following core courses:

- |         |                                    |
|---------|------------------------------------|
| HRD 602 | Leadership Theory and Practice (3) |
| HRD 641 | Change in the Workplace (3)        |
| HRD 642 | Organizational Behavior (3)        |
| HRD 644 | Team Building (3)                  |

**Core Electives (24 credits)**

Educational Leadership students must take the following eight courses. Substitutions are only permitted in consultation with the adviser.

ECED/ELED 665/

SCED 741 Curriculum Theory and Development (3)

EDUC 745 School Budgeting and Fiscal Issues (3)

ELED 781/

SCED 683 Seminar in Supervision (3)

EDUC 603 School Law (3)

EDUC 605 Research and Information Technology (3)

ELED 797/

SCED 797 Internship in Educational Leadership (3-6)

ISTC 702 Educational Leadership and Technology (3)

MNGT 601 Administrative Theory and Practice (3)  
or

ELED 716/

SCED 643 Administration of the Schools (3)

**ORGANIZATIONAL CHANGE  
CERTIFICATE OF ADVANCED STUDY**

Program Directors:  
Roxana Dellavecchia  
410-704-2444  
rdellavecchia@towson.edu

Larry Froman  
410-704-4685  
lfroman@towson.edu

Michael Hickey  
410-704-5038  
mhickey@towson.edu

The Certificate of Advanced Study (CAS) in Organizational Change is an interdisciplinary program designed for students wishing to continue their education at the post-master's level. The 30-credit hour program consists of five core courses and five additional elective courses intended to focus on issues related to the participant's organization and professional goals. Building on a curriculum covering areas such as workforce development, educational leadership, and human resource management, program participants will have an opportunity to continue their professional development to become leaders within educational, business and community-based organizations. Other courses may be selected based on professional needs through consultation with the adviser.

**Admission Requirements**

- Completion of master's degree in human resource development, education, administration or related field from a regionally accredited institution.
- Two letters of recommendation from individuals who can attest to the applicant's academic background, professional experience and/or personal qualities.
- Letter of application.
- Academic writing sample.
- Submission of a professional portfolio for Educational Leadership.
- A minimum graduate grade point average of 3.50.

- Scores on the Graduate Record Examination (GRE), Miller Analogy Test (MAT) or submission of a professional portfolio.
- Minimum TOEFL score of 550 (where applicable).

## Certificate Requirements Required Courses

HRD 602	Leadership Theory and Practice (3)
HRD 641	Change in the Workplace (3)
HRD 642	Organizational Behavior (3)
HRD 644	Team Building (3)
ISTC 702	Educational Leadership and Technology (3)

## Elective Courses for Human Resource Development (choose five)\*\*

COSC 605	Human Factors and Computer Interaction (3)
HLTH 649	Program Evaluation (3)
HRD 629	Personnel Selection (3)
ISTC 605	Web-Based Instruction in Education (3)
ISTC 617	Distance Education in Theory and Practice (3)
ISTC 667	Instructional Development (3)
ISTC 797	Internship in Instructional Technology (3)
MNGT 601	Administrative Theory and Practice (3)
PSYC 605	Counseling Techniques (3)
WMST 601	Women, Gender and the Workplace (3)

## Elective Courses for Educational Leadership (choose five)\*\*

EDUC 603	School Law (3) *
EDUC 646	Human Relations and the Professional (3)
EDUC 740	Data-Based Decision-Making for Curriculum and Instruction (3)
EDUC 741	Seminar in Liability for Professionals in Education (3)
EDUC 745	School Budgeting and Fiscal Planning (3)
ELED 665/ SCED 741	Curriculum Theory and Development (3)

ELED 716/ SCED 643	Administration of the Schools (3) *
ELED 781/ SCED 683 ELED 797/ SCED 797	Seminar in Supervision (3) *
ISTC 617	Distance Education in Theory and Practice (3)

\*Courses that are approved for Administrator I Certification.

\*\*Other courses may be selected as suitable to particular organizational or professional needs through consultation with the adviser.

## POST-MASTER'S PROGRAM FOR ADMINISTRATOR I STATE CERTIFICATION

Program Adviser: Roxana DellaVecchia  
410-704-2422  
rdellavecchia@towson.edu

This post-master's program is MSDE-approved for those who seek Administrator I certification and did not complete an MSDE-approved master's program for Administrator I.

This program allows those education professionals currently certified or licensed, and working in schools or school systems, to be eligible to receive Administrator I certification for Assistant Principal or Supervisor. Certification for Administrator II requires the passing of the SLLA exam in addition to the requirements for Administrator I.

## Program of Study

Students enrolled in this program must take the following six courses:

ELED 665/ SCED 741	Curriculum Theory and Development (3)
ELED 781/ SCED 683 ELED 716/ SCED 643	Seminar in Supervision (3)
EDUC 603	Administration of the Schools (3)
	School Law (3)

ELED 797/

SCED 797 Internship in Educational Leadership (3)

HRD 644 Team Building (3)

## LIBERAL AND PROFESSIONAL STUDIES

Degree: Master of Arts

Program Contact:

Dean's Office, College of Liberal Arts  
410-704-2128

The Master of Arts in Liberal and Professional Studies is an interdisciplinary program that crosses traditional academic boundaries and provides a solid intellectual framework within which students can create their own degree plans. The core curriculum of the program focuses on the emerging knowledge and new skills needed to learn and work in a culturally diverse society, increasingly influenced by information technology and complex systems. The degree is particularly well suited for students who wish to integrate specialized study with a critical understanding of the broader developments and theories transforming their field of endeavor. In consultation with the program director, entering students construct an individualized plan of study combining core seminars with graduate-level courses selected from liberal and fine arts, social and human sciences, and applied science and technology. Although degree plans can be built around traditional academic disciplines, most students develop a program built around practical study in a variety of areas such as:

- Digital media and communication
- Information technology and applied systems theory
- Management and administration
- Public policy and regional planning
- Human resources
- Health care
- Education

The program is committed to offering working professionals flexible and convenient ways to gain advanced degrees through collaborative learning, Internet-based course work and independent study.

## Admission Requirements

A grade point average of 3.00 (2.50 for conditional admission) is required. All GPA calculations for admission are based upon the last 60 credits of undergraduate and post-baccalaureate study. The applicant must submit a brief essay discussing reasons for entering the program and how the program will allow the applicant to achieve personal and professional goals. Send the essay directly to the program director.

## Degree Requirements

### Required Core (12 credits)

LBPS 601 Introductory Seminar in Graduate Research (3)

A 600/700-level independent study course approved by the program director (3)

An advanced writing course (3)

LBPS 602 Culminating Seminar in Liberal and Professional Studies (3)

The introductory and culminating LBPS courses must be completed with a grade of A or B in each. The courses may be repeated once for the purpose of grade change.

### Elective Core (24 credits)

Elective courses must be approved by the program director and should be taken from at least three disciplines with a maximum of 15 credits in any one discipline. No more than three 500-level graduate courses can be counted toward a degree. Twelve credits of the elective core must be completed at Towson University. The remaining 12 credits can be taken at any other University System of Maryland school or Morgan State University.

## FAMILY STUDIES CERTIFICATE

Students interested in enhancing their knowledge of family-related issues might consider pursuing the Post-baccalaureate Certificate in Family Studies as they complete their master's degree. For more information, see the description of this graduate program in the Interdisciplinary Programs section of this catalog.

## MANAGEMENT AND LEADERSHIP DEVELOPMENT CERTIFICATE

Program Contact: Bracken Dailey  
410-704-4738  
bdailey@towson.edu

The Management and Leadership Development Certificate program is an interdisciplinary graduate program that focuses on the understanding, development and application of management and leadership for students with undergraduate training in non-business fields such as education, communications, engineering, social or natural sciences, and medical professions. The program is designed for professionals seeking to develop and advance their knowledge and skills in management and leadership. It aims to help leaders become more effective in managing people and their behavior in organizations.

The interdisciplinary design of the program allows students to benefit from a breadth of developmental experiences in team building, communications management, organizational behavior, organization design, development and change through a variety of learning approaches such as case studies, experiential small group activities and self-assessments. The program is intended for students who are full-time working professionals, preferably with at least two to three years of work experience, seeking to advance their careers and gain skills for managing and leading people in the workplace. The focus of this program is on managerial activities that allow organizational members to embrace change and create a learning environment through employee empowerment and motivation, teamwork, information sharing, work design and effective organizational structure and design.

The program's flexibility makes it ideal to accommodate the demands of a working professional's schedule. It can normally be completed in one to two years. At present, all courses are offered on campus at Towson University. This program will move to a fully online format beginning fall 2005. Students who are declared candidates for the certificate must move to the online format at that time.

## Admission Requirements

- A baccalaureate degree.
- An undergraduate grade point average of minimum 3.00 (2.50 for conditional admission) based on the last 60 credits of undergraduate and post-baccalaureate study. An admission exception policy is in place for eligible candidates with undergraduate degrees obtained at least 10 years ago.
- A resume sent directly to the program contact.

## Certificate Requirements (15 credits)

HRD 602	Leadership Theory and Practice (3)
HRD 644	Team Building (3)
MNGT 601	Administrative Theory and Practice (3)
PRWR 621	Business Writing (3)

*One elective course (3) from the following:*

HRD 642	Organizational Behavior
MNGT 602	Conflict Resolution in Commerce and Industry (3)
MNGT 609	Business and Society (3)

## WOMEN'S STUDIES

Degree: Master of Science  
Program Director: Esther Wangari  
410-704-2580  
ewangari@towson.edu

The Master of Science in Women's Studies is an interdisciplinary and multidisciplinary program that provides students with both a basic groundwork in the field of women's studies and a combination of skills that can be used in diverse fields and across disciplines. Graduates of the program will have the academic preparation to pursue careers in a variety of public and private organizations. They will be prepared to adapt to changing environments in business, health professions and nonprofit organizations in a regional, national or international context.

The program is organized around a required core of women's studies theory courses, skills courses (to provide a methodological base of communication, research and com-

puter skills), and a concentration selected by the student. Students may select a concentration from one of four areas: Women and Gender in the Workplace, Women and Health (with three options), Women in an International Context, and Women and Public Policy. Each concentration will include a required WMST 6xx course.

A graduate adviser from the Women's Studies Program will be assigned to each student. Students may select their own adviser once they are in the program. After the completion of the core program and in consultation with their graduate advisers, students will construct an advanced and individually tailored program of study in one of the four concentrations listed above. Students who wish to enhance their course work with practical experience may take the internship course.

### Admission Requirements

- A bachelor's degree with an undergraduate grade point average of 3.00 is required. All GPA calculations for admission are based upon the last 60 credits of undergraduate and post-baccalaureate study.
- A 2.50 GPA for conditional admission. An admission exception policy is in place for eligible candidates, including those whose undergraduate degrees were obtained at least 10 years earlier.
- An introduction to women's studies course (Towson University's WMST 231 Women in Perspective, or a comparable course).
- An admission essay in which the applicant describes her or his qualifications for graduate study in women's studies and reasons for pursuing the master's degree. Send directly to program director.
- Two letters of recommendation. Use the Recommendation Form found in the Graduate School Application Packet, and send it to the program director.

### Degree Requirements

The M.S. in Women's Studies requires 36 credits.

### Required Core Courses (12 credits)

Women's Studies Theory Courses (6 credits)  
WMST 607 Advanced Feminist Theory (3)  
WMST 603 The Diversity of Women (3)

### Women's Studies Skills Courses (6 credits)

WMST 609 Applied Research Methods and Skills I (3)\*  
WMST 610 Applied Research Methods and Skills II (3)\*

\*Requires adequate computer skills to be determined by Tech Check available from program director.

### Concentration Courses (18 credits)

Women's studies introductory course in the selected concentration (3)  
Women's studies introductory course in one of the other concentrations (3)  
Electives chosen from an approved list in consultation with an adviser (12)

### Culminating Project (6 credits)

WMST 796 Internship  
or  
WMST 897 Thesis

### Optional (3-6 credits)

WMST 620 Field Experience (3-6)

### Women and Gender in the Workplace (15 credits)

Required: WMST 601 Women and Gender in the Workplace (3)  
Electives (12 credits) selected from an approved list, including the following.

#### Highly Recommended Courses:

ANTH 568 Development and Industrialization in Cross-Cultural Perspective (3)  
ECON 574 Economic Issues of Gender (3)  
PSYC 641 Change in the Workplace (3)  
PSYC 642 Organizational Behavior (3)  
SOC 531 Deviance and Organizations (3)

#### Other Optional Courses:

ANTH 521 Gender in Cross-Cultural Perspectives (3)

HIST 506	Women in 20th Century U.S. History (3)	HLTH 647	Health Care Financial Management (3)
HIST 558	Workers and Work in the United States (3)	HLTH 651	Planning and Marketing Health in Business and Industry (3)
HIST 546	History of American Business	OCTH 611	Advanced Occupational Therapy Theory and Philosophy (3)
HIST 592	Historical Themes: Comparative History of the Modern Family (3)	OCTH 613	Advanced Research Methods in Occupation-Based Practice (3)
PSYC 610	Advanced Psychology of Aging (3)	PHIL 561	Ethics of Medicine and the Life Sciences (3)
PSYC 524	Social Psychology (or SOCI 513) (3)	PSYC 547	Sex Differences: Psychological Perspectives (3)
PSYC 532	Cross-Cultural Psychology (3)	PSYC 557	Gender Identity in Transition (3)
PSYC 567	Midlife Development (3)	PSYC 570	Health Psychology (3)
PSYC 547	Sex Differences: Psychological Perspectives (3)	PSYC 577	Cross-Cultural Psychology (3)
PSYC 577	Cross-Cultural Psychology (3)	PSYC 667	Psychosocial Aspects of Disability (3)
PSYC 610	Advanced Psychology of Aging (or SOCI 575) (3)	SOCI 535	Medical Sociology (3)
SOCI 575	Gender and Aging (or PSYC 610) (3)	WMST 536	Women and Medicine (3)
WMST 620	Field Experience (3-6)	WMST 539	Reproductive Technologies and the Future of Motherhood (3)

### Women and Health (15 credits)

Required: WMST 613 Women and Health (3)  
Electives (12 credits) selected from an approved list, including any distribution of the following, or the student may specialize in one of the three areas of training enumerated below.

#### Women and the Health Care System

GEOG 652	Seminar in Medical Geography (3)
HCMN 541	Legal and Ethical Issues in Health Administration (3)
HLTH 611	Current Literature in Health (3)
HLTH 615	Community Health: Qualitative and Quantitative Elements (3)
HLTH 625	Research Methods in Health (3)
HLTH 627	Health and Worker Performance (3)
HLTH 631	Program Planning in Health Education (3)
HLTH 633	Health Care Systems (3)
HLTH 637	Skill Development: Leadership in Health Care Setting (3)
HLTH 645	Health Care Policy (3)

#### Aging and Women's Health Issues

GEOG 67x	Special Topics: Seminar in the Geography of the Aged (3)
HLTH 511	Health and Later Maturity: The Aging Process (3)
HLTH 611	Current Literature in Health (3)
OCTH 631	Community Gerontology (3)
PSYC 505	The Psychology of Aging (3)
PSYC 532	Cross-Cultural Psychology (3)
PSYC 567	Midlife Development (3)
PSYC 570	Special Topics (3)
PSYC 571	Special Topics (3)
PSYC 605	Counseling Techniques (3)
PSYC 610	Advanced Psychology of Aging (3)
PSYC 667	Psychosocial Aspects of Disability (3)
SOCI 550	Sociology of Aging (3)

WMST 601	Women and Gender in the Workplace (3)
WMST 611	Women, Public Policy, and Social Change (3)
WMST 620	Field Experience (3-6)

- SOCI 558 Sociology of Death, Dying and Bereavement (3)  
 SOCI 559 Social Gerontology (3)  
 WMST 533 Women and Aging (3)  
 WMST 536 Women and Medicine (3)  
 WMST 620 Field Experience (3-6)
- Violence Against Women (Rape, Sexual Assault, and Relationship Violence)**  
 HLTH 570 Health Workshop (3)  
 HLTH 625 Research Methods in Health (3)  
 HLTH 645 Health Care Policy (3)  
 PHIL 561 Ethics of Medicine and the Life Sciences (3)  
 PSYC 547 Sex Differences: Psychological Perspectives (3)  
 PSYC 57x Special Topics: Psychology of Women (3)  
 SOCI 55x Women and Crime (3)  
 SOCI 551 Deviant Behavior (3)  
 SOCI 553 Theories of Crime (3)  
 WMST 536 Women and Medicine (3)  
 WMST 538 Women and Sexuality (3)  
 WMST 620 Field Experience (3-6)

### **Women in an International Context (15 credits)**

#### **Foreign Language Requirement:**

Students should plan on achieving a level of proficiency in one foreign language that is the equivalent of four semesters of college-level foreign language training. This requirement may be completed by taking Elements I and II and Intermediate I and II or by an Equivalence Examination at the intermediate level administered each November by the Department of Modern Languages. Students who have completed several years of foreign language in high school should consult with the chair of modern languages to determine the number of courses or credits needed to fulfill this requirement for the major.

Required: WMST 605 Women in an International Context (3)

Electives (12 credits) selected from an approved list, including the following, based on a regional or thematic focus to be determined in consultation with an adviser:

- ANTH 521 Gender in Cross-Cultural Perspective (3)  
 ANTH 546 Wealth, Power and Politics in Cross-Cultural Perspective (3)  
 ANTH 553 Latin American Women in the Americas (3)  
 ANTH 565 North American Indians (3)  
 ANTH 566 South American Indians (3)  
 ANTH 567 Peoples of the Middle East (3)  
 ANTH 569 Tradition and Revolution in Latin American Society (3)  
 GEOG 67x Seminar in Social Geography (3)  
 HIST 508 Life Histories of African Women (3)  
 MNGT 603 Human Resource Management in a Global Economy (3)  
 WMST 570 Topics in Women's Studies (3)  
 WMST 611 Women, Public Policy, and Social Change (3)  
 WMST 620 Field Experience (3-6)

### **Women and Public Policy (15 credits)**

Required: WMST 611 Women, Public Policy, and Social Change (3)

Electives (12 credits) selected from an approved list, including the following:

- ECON 574 Economic Issues of Gender (3)  
 HIST 506 Women in 20th-Century U.S. History (3)  
 HIST 526 Gays and Lesbians in U.S. History (3)  
 HIST 545 Social History (3)  
 HIST 553 The City in American History (3)  
 HIST 558 Workers and Work in the United States (3)  
 HIST 592 Historical Themes: Comparative History of the Modern Family (3)  
 POSC 505 Urban Government and Politics (3)  
 POSC 515 The Presidency (3)  
 POSC 516 Congress (3)  
 POSC 517 American Political Parties (3)  
 POSC 550 Group Politics and Public Opinion (3)  
 POSC 570 Special Topics: Women and the Law (3)  
 POSC 581 Seminar: Public Policy Analysis (3)

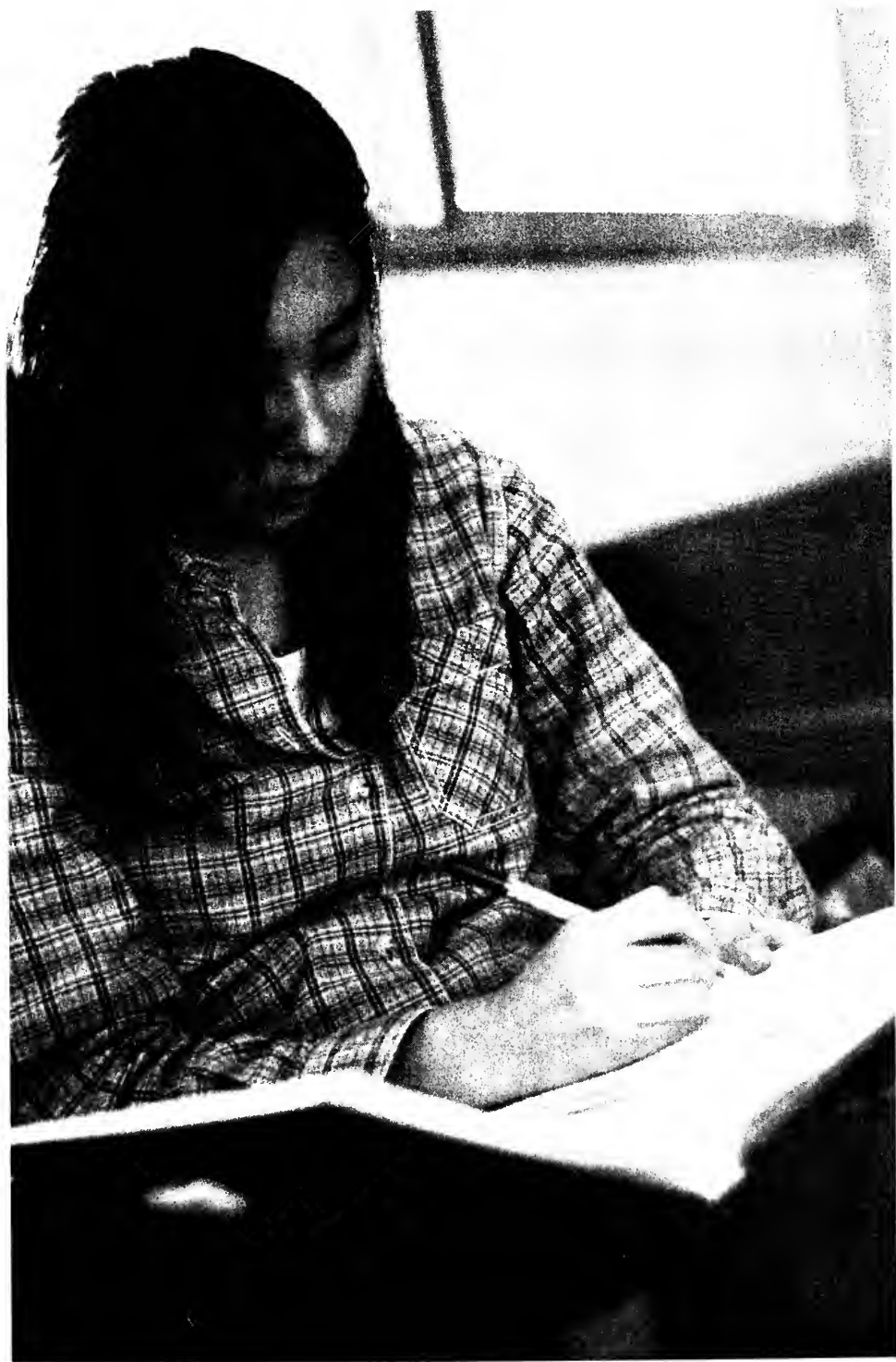


- SOCI 523 Social Change (3)
- SOCI 533 Political Sociology (3)
- SOCI 541 Class, Status and Power (3)
- SOCI 557 Social Welfare (3)
- WMST 537 Feminism (3)
- WMST 570 Topics in Women's Studies (3)
- WMST 5xx Women and Aging (3)
- WMST 601 Women and Gender in the  
Workplace (3)
- WMST 605 Women in an International  
Context (3)
- WMST 613 Women and Health (3)
- WMST 620 Field Experience (3-6)

## **WOMEN'S STUDIES CERTIFICATE**

Program Director: Esther Wangari  
410-704-2580  
ewangari@towson.edu

A post-baccalaureate certificate in Women's Studies was recently approved. For more information, contact the program director.



# Student Services

## Albert S. Cook Library

410-704-2456 Circulation

410-704-2461 Information Desk

410-704-2462 Reference Desk

The Albert S. Cook Library, located near the center of campus, serves as the hub of print, media and electronic information resources for the university. The collection of approximately 547,000 volumes, 790,000 microform units, and almost 2,200 print periodical subscriptions has been selected to support the university's curriculum. Its scholarly collections include educational resource documents (ERIC microfiche), a collection of early English literature, a strong women's studies collection and a microfilm set of early American periodicals. These materials are accessed through an integrated online catalog which displays not only the holdings of Towson but also the collections of other libraries in the University System of Maryland. A cooperative borrowing and delivery agreement with other USM libraries allows students to request books from other libraries. About 2,000 electronic journals and 80 electronic databases in business, literature, nursing and allied health, psychology, sociology and many interdisciplinary subject areas are available to Towson University students through the World Wide Web. Some of these databases include full text of journal articles. Journal articles not available in the Cook Library may be requested for delivery.

## African American Cultural Center

University Union, Room 317

410-704-2641

The African American Cultural Center (AACC) sponsors programs and activities that reflect the lifestyles, history and culture of people of African descent. The center also seeks to stimulate scholarship at Towson in the areas of African American, African-Caribbean and African studies. Each February, the AACC produces the "Martin Luther

King Celebration" as part of a month long series of Black History Month programs. The center sponsors the Towson University Gospel Choir and the Kuumba Players Theater Troupe, who perform on-campus and around the Baltimore metropolitan area. The AACC hosts lectures and discussion groups, provides information and referrals, showcases amateur and professional artists, and sponsors the Distinguished Black Scholars Lecture Series. The center, which houses an ever-growing collection of art, music and popular and scholarly literature, provides a comfortable setting in which to study, relax and socialize. Student or staff groups may reserve the center for meetings and informal gatherings.

The center houses a wealth of information concerning graduate schools, fellowships, scholarships, employment opportunities, and other news relevant to minority students, faculty and staff. The information is updated regularly. Students are invited to stop by often; no appointment is necessary.

## The Career Center at Towson University

7800 York Road, Room 315

410-704-2233

The Career Center staff helps students prepare and search for meaningful and satisfying careers. The center also provides services and information leading to academic internship opportunities and on- and off-campus, full-time and part-time employment. To learn more about the programs and services offered by the Career Center, visit the Web site, [www.towson.edu/careercenter](http://www.towson.edu/careercenter), or call for a schedule of information seminars.

### *Career Center Services for Students*

- eRecruiting (Web-based resume system)
- Career Fairs/Job Fairs
- Career advising
- Career Resource Library
- Graduate school information

On-campus interviewing  
Student employment (on- and off-campus)  
Resume referral services  
Internships  
Professional development seminars

All employment opportunities are posted on the center's Web site.

## **Counseling Center**

Glen Esk  
410-704-2512  
Office Hours:  
Monday-Friday, 8 a.m.-5:00 p.m.  
Some evening appointments available

The Counseling Center provides a variety of professional services for students, including individual and group counseling, psychiatric services, consultation, outreach workshops, career development program, and alcohol and drug treatment and education programs. Counseling Center services are free and confidential.

## **Dining Services**

410-704-2302  
The key word for eating at Towson University is "choice." There are 13 great places to eat at TU. You can dine a la carte at 11 locations on campus, or at two all-you-can-eat dining halls. Traditional, unrestricted or block meal plan options are available. Call 410-704-2530 for more information.

Students who have a Dining Points debit account can use their OneCard ID card to receive a five percent discount on food purchased at Dining Services locations.

## **Disability Support Services**

Administration Building, 2nd Floor  
410-704-2638  
410-704-3475  
Testing Services Center  
410-704-2304

Disability Support Services (DSS) provides services and accommodations to meet the needs of students with disabilities, including students with attention deficit/hyperactivity disorders, blindness/low vision, deafness/hard of hearing, learning disabilities, medical disabilities, physical disabilities and

psychological disabilities. Students with disabilities are encouraged to call and make an appointment to register with DSS as soon as possible after admission to the university to ensure timely provision of services. Even if a student decides that services are not needed immediately, it is advisable to register with the office so that documentation is on file should the services be needed at a later time. Recent documentation from a qualified professional as to the nature of the disability is required for services, and accommodations are provided according to individual need. In addition to arrangements for accommodations, services include the provision of instructional support in the form of time management, study and test-taking strategies, and reading and writing assistance. Access to assistive technology, including disability-specific software and equipment, is provided as well. The Testing Services Center offers accommodated testing services Monday through Thursday, 9:30 a.m. to 5:30 p.m. and Friday, 9:30 a.m. to 1:30 p.m. Students must be registered with DSS and make appointments at least one week in advance. Students who suspect they have a disability but do not have documentation are also encouraged to contact DSS for advice on how to obtain an appropriate evaluation.

## **Dowell Health Center**

Dowell Hall  
Appointments and General Information  
410-704-2466

The Dowell Health Center has an experienced staff of physicians, nurse practitioners, physician's assistants RN's and health educators. Most services are offered at a low cost. These include treatment of common illnesses and injuries, a full range of sexual health services, acupuncture and massage by licensed therapists, anonymous HIV testing, simple lab tests and health education. Prescription birth control and medications are offered at a low cost. X-rays, outside lab and other diagnostic tests, and outside physician or hospital referrals are the student's financial responsibility.

For non-urgent problems, students should make an appointment by calling 410-704-2466 between the hours of 8:30 a.m. and 4:30 p.m. Walk-in patients will be evaluated by a trained nurse and referred to a clinician or given a follow-up appointment if needed.

The Student Health Service, located in Dowell Health Center, is open weekdays throughout the year, with the exception of the Christmas and Thanksgiving breaks and university holidays. Hours during the regular semester are Monday through Friday, 8:30 a.m. to 5 p.m. with some evening hours available by appointment. Call for January and summer hours.

For after-hours emergencies, students should call 911 or the University Police, 410-704-2133, who will arrange transportation to a local emergency room. For non-emergencies after hours, there are urgent care centers at St. Joseph Medical Center and Greater Baltimore Medical Center to see students at their own expense. Call 410-704-2466 for these numbers.

Health insurance is strongly recommended to help defray the costs of services not available at the Health Center. The university offers an insurance plan which provides coverage for such services at a very reasonable cost and full coverage for most services and drugs provided by the Health Center.

### *Immunization Requirements*

All graduate degree candidates, any non-degree or certification student taking 6 or more credits and all international graduate students must meet the university's immunizations policies prior to registration. This should be done before arrival on campus to minimize delays in registration. Immunizations are available at the Dowell Health Center for a fee. Students living in on-campus housing must be immunized against meningococcal meningitis or sign a waiver indicating they understand the risks of the disease and decline to be immunized.

### *Health Insurance*

Dowell Health Center offers high quality primary health care to any registered stu-

dent, regardless of insurance status. However, there are times when students need medical services not available at the Health Center. For this reason, all students are strongly encouraged to have health insurance coverage. Resident students, international students and intercollegiate athletes are required to have insurance.

The university offers students an excellent 12-month health insurance policy at a very reasonable cost for the coverage. The plan uses the Dowell Health Center as the primary care provider while school is in session and covers services such as specialty referrals, diagnostic tests, surgical procedures, and hospital care not available at the Health Center. It will cover urgent care and emergency services at other facilities when the Health Center is closed or the student is away from school. Coverage for spouses and children of enrolled students is available. Policies can be purchased for the entire year (August 15 through August 14) for one semester, or summer only.

All international students on F and J visa status are required to have health insurance that meets the university's minimum standards. These students are automatically enrolled in the university-sponsored insurance plan and the cost is billed to their tuition account. Students with their own comparable insurance may submit a waiver application, along with their plan benefits in English and proof of payment. If the waiver is approved, the insurance charge will be refunded. NOTE: Waiver deadlines are September 15 (fall semester) and February 15 (spring semester). Waiver applications submitted after the deadline will not be considered and refunds of insurance premium will not be given. Waiver applications must be re-submitted every fall semester. See the Health Center Web site for waiver standards and application forms.

Information and enrollment forms for the Towson-sponsored plan are mailed to all registered students in the summer and are available on the Health Center Web site, [www.towson.edu/dowellhealthcenter](http://www.towson.edu/dowellhealthcenter). For additional information, contact Dowell Health Center.

## Graduate Student Association

7800 York Road, Second Floor

410-704-3967

Fax: 410-704-4494

gsa@towson.edu

The Graduate Student Association (GSA) upholds the mission of academic excellence at Towson University and provides a vehicle for graduate students to express their needs, concerns and ideas. The GSA provides grants twice a year (spring and fall) to help defray costs for graduate students who wish to pursue research, attend a conference or give a presentation. Graduate students are encouraged to apply for these grants. The GSA represents graduate student views on various university-wide committees, and distributes a newsletter that addresses various topics specific to the graduate student. Graduate student fees fund the GSA, therefore all graduate students automatically become members of the GSA, and active participation is encouraged.

## Housing

Graduate students may live in residence halls or apartments if space is available. Space is very limited due to high demand of undergraduate students, who have first priority. Another popular and convenient residence for both single and married graduate students is the Burkshire at Towson University. These university-owned apartments range in size from one-bedroom to two-bedrooms with a den. They are located adjacent to campus. All on-campus housing, except the Burkshire, is furnished and includes local telephone service, voice mail, call waiting, call forwarding, three-way calling, Comcast cable television programming (including HBO), MicroFridge (except apartments that have full kitchens) and Comcast cable Internet service. The Burkshire offers amenities such as washer/dryers and dishwashers. The Department of Housing and Residence Life, 410-704-2516, can provide more information about on-campus housing. For more information on the Burkshire Apartments, call 410-324-8100.

An Off-Campus Housing bulletin board in

the University Union is available for use by students seeking housing, landlords who have housing to offer or renters looking for roommates. Apartment guides and a list of rooms for rent in private homes can be obtained from the Office of Student Activities, University Union, room 217. Also, to view this information on the Web, visit [www.towson.edu/commuter](http://www.towson.edu/commuter). Another resource is *The Baltimore Sun* Apartment Search office, a local business providing free locator search information to renters on over 1,300 apartments in Towson and 90,000 apartments in the Baltimore area. You can reach *The Baltimore Sun* Apartment Search at 800-874-0788 or locally at 410-292-1980.

## Millennium Hall

Capstone On-Campus

443-275-4050

capstone@towson.edu

Millennium Hall is Towson University's new five-story residence building offering upper-class and graduate students housing in four-bedroom furnished apartments. Operated by Capstone On-Campus, the building is a privatized apartment complex. Each four-bedroom apartment accommodates four students and is fully furnished with a living/dining room and full kitchen. Utilities are included as part of the rental fees. Each private bedroom has a telephone jack, cable TV, and computer connection. The building is air-conditioned and has a laundry room on the first floor. Leases offered are 10 months for the academic year, as well as short-term summer leases.

## International Student and Scholar Office

Administration Building, Suite 246

410-704-2421

Fax: 410-704-6040

isso@towson.edu

[www.towson.edu/isso](http://www.towson.edu/isso)

The ISSO provides services and programs for over 900 international students and scholars. International students at Towson represent about 100 different nations. Ap-

proximately 75 percent of international students are here for two to four years, working on an undergraduate or graduate degree. The ISSO provides the following programs and services:

- Documentation and legal expertise which make possible the enrollment of nonimmigrant students.
- Advising services necessary for those international students to maintain legal status while in the United States, and to understand applicable federal government regulations and university policies.
- Designations and presentation programs that assist international students in their transition to life in the United States and provides them with tools for success in the American academic environment.
- Advising for students regarding personal, academic, legal, career, intercultural communication, and cross-cultural adjustment issues.
- Acting as liaison to and advocate for students with government agencies and university offices.
- Coordination of programs and ongoing services aimed at enhancing international students' social life here, encouraging their interaction with American students and community members, and promoting ways that they can become involved and be appreciated for their unique cultural perspectives.
- Assisting in coordinating appropriate services for international students in legal, medical and family emergency situations.

At the beginning of each semester, the ISSO holds a two-day orientation program designed to assist new students by:

- describing typical difficulties in the cross-cultural adjustment cycle (including culture shock)
- suggesting tips for successful cross-cultural adjustment and effective intercultural communication
- offering information about the university and the community
- introducing key university service-providing offices

- answering questions about settling into accommodations
- suggesting preparations for success in the new academic environment
- helping in the transition through the creation of a support network
- offering opportunities to build friendships in the first week on campus

The ISSO International Ambassador Program matches new international students with student mentors based on cultural interests, foreign language skills and academic pursuits. Ambassadors assist students at the ISSO new student orientation program, and mentor new students throughout their first semester at Towson. International and American students who are interested are encouraged to contact the ISSO for an application.

The ISSO coordinates other activities for international students throughout the year, such as:

- educational, cultural and social activities to foster interaction and improved appreciation among national/cultural groups and Americans on campus
- trips to the Baltimore Inner Harbor, MVA, and the Social Security Administration
- trips to Washington, New York, Philadelphia and Lancaster, Pa. during semester breaks
- social activities each month of the academic year
- an International Festival and other culture-sharing programs each year, in cooperation with the student-led International Student Association

International students are welcome to provide input on the activities offered.

The office publishes *ISSO News*, a quarterly newsletter, and maintains an e-mail distribution list for all international students. We use these means to communicate pertinent immigration information, recreational offerings, job and travel opportunities, ISSO events and services, and other news for or about the international population on campus. Students who are not receiving *ISSO News* should input an up-to-date local address using University online services.

Most of the staff are available Mon. through Fri. from 9:00 a.m. to 5:30 p.m. Some scheduled in-person and phone appointments are available after 5 p.m. to students with urgent needs. Any student who has an emergency outside of normal business hours may contact the University Police at 410-704-2133. The police may assist or may contact an ISSO staff member at home.

### **Jewish Cultural Center**

Newell Dining Hall  
410-704-4671  
hillel@towson.edu

The Jewish Student Center offers a full range of social, educational, religious and cultural programs, including a Kosher dining program. The center is run by Towson Hillel, which is in association with Hillel of Greater Baltimore. The center has comfortable furniture, work tables for students groups, and an eating and socializing area. Open to all Towson students, programs include weekly Shabbat dinners and social gatherings as well as discussions and lectures. The center is available for other student groups if reservations are made in advance. Students who participate in the Kosher meal plan option at Newell Dining Hall are welcome to eat in the center.

### **Office of Student Activities**

University Union, Room 217  
410-704-3307  
www.towson.edu/studentactivities  
Office Hours:

Monday-Thursday, 8:30 a.m.-6 p.m.  
Friday, 8:30 a.m.-5 p.m.

The Office of Student Activities complements the mission of the university by creating involvement opportunities and environments that motivate and inspire students to become active members of the campus community. Working in collaboration with faculty and staff, Student Activities staff offer a wide array of educational, cultural, social and recreational programming that fosters student learning and development. Areas of responsibility for the office include: leader-

ship development, fraternity/sorority affairs, commuter student services, campus programming, service and volunteerism and student organization assistance.

### **Office of Diversity Resources**

University Union, Room 232  
410-704-2051  
Office Hours:  
Monday-Thursday, 8:30 a.m.-7 p.m.  
Friday, 8:30 a.m.-4:30 p.m.

Towson University is committed to developing an environment which is conducive to the success of the multicultural, multiracial population it serves. The Office of Diversity Resources sponsors a variety of programs, including the Graduate Diversity Grant and the TU Black Graduate Student Association, which provides information about university services, scholarships, social opportunities and access to study groups.

### **Office of Technology Services**

Albert S. Cook Library, First Floor  
Help Center, Room 5  
410-704-5151  
www.towson.edu/ots  
Office Hours:  
Monday-Thursday, 8 a.m.-7 p.m.  
Friday, 8 a.m.-5 p.m.  
Saturday, 10 a.m.-6 p.m.  
Sunday, noon-8 p.m.

The Help Center is located in room 5 on the first floor of Cook Library. Graduate students may establish a computer account to access e-mail, news and Internet resources and to create Web pages. For more information about the university's technology resources, visit [www.towson.edu/ots](http://www.towson.edu/ots).

### **Parking**

University Union, Room 118  
410-704-2284  
<http://parking.towson.edu>

All motor vehicles, except those parked at parking meters, must display a valid parking permit when parked on campus 24 hours a day from Monday at 6 a.m. through Friday at 3 p.m. Vehicles in violation of this regula-



tion will be ticketed. Both resident and commuter students may apply to purchase parking permits.

All-day and evening student parking permits are available. The all-day permit offers on-campus parking any time, 24 hours a day, Monday through Friday, at an estimated cost of \$200 for the academic year, or \$115 per semester for the 2004-2005 academic year. The evening-only permit offers parking on campus between 3 p.m. and 6 a.m., Monday through Friday, at an estimated cost of \$70 annually or \$45 per semester for the 2003-2004 academic year. These prices are working estimates as of time of publication. Final prices are expected to increase and subject to change.

Visitors to campus are required to purchase a one-day Visitor Parking Permit. Cost for this permit is estimated to be \$5. Those participating in Admissions Office events are excluded from this requirement. Cost subject to change without notice.

For up-to-date information on pricing, or to purchase a parking permit, contact the Auxiliary Services Business Office, or visit our Web site.

## Recreation and Fitness Facilities

Burdick Hall  
410-704-2367

Recreation and fitness facilities open to students, faculty and alumni are located in Burdick Hall and the Towson Center. Campus Recreation Services offers a variety of programs and services, including fitness and wellness programs, sports clubs and intramural sports.

Recreational sports facilities at Burdick Hall include three gymnasiums, a fitness facility, playing fields, a climbing gym, a 25-yard swimming pool and locker rooms. The gymnasiums, climbing gym, fitness facility and swimming pool are available during the hours listed below. A valid TU OneCard is required to gain access to the facilities and to check out nets, balls and other equipment.

### Gymnasiums

Mon.-Thurs., 4 - 8:50 p.m.

Fri., 4 - 7:50 p.m.

Sat. - Sun., 1 - 4:50 p.m.

### Climbing Gym

Mon. - Thurs., 3-10 p.m.

Sun., noon - 6 p.m.

### Fitness Center - C.R.I.B.

Mon. - Fri., 8 a.m. - 10 p.m.

Sat., 10 a.m. - 6 p.m.

Sun., noon - 8 p.m.

### Swimming Pool

Mon. - Fri., 7:30 a.m. - 9 a.m.

Mon. - Fri., 11:30 a.m. - 1 p.m.

Mon., Wed., Thurs., Fri., 7:30 - 10 p.m.

Sat., 1 - 5 p.m.

Sun., 11 a.m. - 5 p.m.

## Campus Recreation Services

### Department

Burdick Hall, Room 150

410-704-2367

[www.towson.edu/campusrec](http://www.towson.edu/campusrec)

The Campus Recreation Services Department comprises five program areas: Adventure Pursuits, Fitness/Wellness, Informal Sports, Intramural Sports and Sport Clubs. Basic information on times of operation can be found on the Rec Check Line, 410-704-2771. You may call 410-704-2367 or 410-704-3649 to speak to a staff member about more detailed information. The department is located in Burdick Hall, room 150.

The Adventure Pursuits program offers an indoor climbing wall (Monday-Thursday, 4-9 p.m.), a wilderness orientation program (Project Marj), an outdoor equipment rental program and a free kayaking clinic on Tuesday evenings in the Burdick Hall pool. Project Marj is a weeklong optional orientation program that takes place at the end of August. It involves backpacking and rock climbing, while allowing students to make friends and find out more about the university.

The Fitness/Wellness program offers approximately 16 aerobics classes each week

during the fall and spring semesters. The class schedule varies from semester to semester, but runs Sunday-Friday at various times. The program also runs educational programs on wellness and staffs the weight room with personal conditioners during selected hours.

The Informal Sports program offers open recreation opportunities in the gymnasiums, 25-yard pool, weight room, beach volleyball courts, climbing wall and Burdick field. Students must show a valid Towson OneCard for entrance and the facilities must not be in use or reserved by academic classes, intercollegiate athletics, intramural sports or club activities. Please call 410-704-2367 for the current schedule of open hours.

The Intramural Sports program offers approximately 20 sports throughout the year, including flag football, soccer, basketball, volleyball, softball, tennis, indoor lacrosse and a climbing competition. To join a team or make one of your own, please call 410-704-3649.

The Sports Clubs program comprises 18 student-run clubs: Badminton, Crew, Field Hockey, Martial Arts, Mountain Biking, Men's Lacrosse, Women's Lacrosse, Outdoor Adventures Unlimited, Paintball, Rock Climbing, Roller Hockey, Table Tennis, Tai Chi, Men's Ultimate Frisbee, Women's Ultimate Frisbee, Men's Volleyball, Women's Volleyball and Wrestling. These clubs do everything from social events to intercollegiate competitions. There is no experience needed to join. For more information please call 410-704-3649.

### **Student Day Care Center**

Lida Lee Tall  
410-704-2652  
childcare@towson.edu  
www.towson.edu/daycare

The Student Day Care Center provides childcare for children, ages 2 through 5. First priority is given to the children of university students. The center is open from 7:30 a.m. to 5:30 p.m. whenever classes are in session. Interested parents should phone or e-mail to

obtain an application and information. Admittance is arranged by order of arrival on the waiting list.

Students with Children is an SGA-affiliated organization supported by the center, which also addresses student parents whose children are not currently enrolled in the center. Such students and their families are invited to events, lectures and outings. Interested student parents are encouraged to e-mail the center at [studentswithchildren@towson.edu](mailto:studentswithchildren@towson.edu) to become part of a list of students who will be notified of upcoming events.

### **Student Employment Program**

The Career Center at Towson University  
7800 York Road, Room 315  
410-704-2233

Graduate students can explore both on- and off-campus job opportunities using the resources provided by the Career Center at Towson University. On-campus jobs are posted on a Web site and in glass display cases on the first and second floors of the University Union. The most recent on-campus job postings are listed on the telephone job line (updated weekly). Off-campus job listings from a wide range of local companies are posted on the Career Center's Web site. Most employers participating in the Student Employment Program offer flexible work hours to accommodate student schedules.

To learn more about the Student Employment Program or other services offered through the Career Center, visit [www.towson.edu/careercenter](http://www.towson.edu/careercenter) or call 410-704-2233.

### **TU Identification Card (OneCard)**

<http://onecard.towson.edu>

The OneCard is your key to accessing services and facilities all over campus. This card gives you access to the library, Dining Points and Retail/Vending Points debit accounts and your meal plan (if you purchase one). It identifies you to university officials as a Towson student with a valid reason to be on campus using university facilities and provides free admission to most athletic events.

To obtain your OneCard, visit the Auxiliary Services Business Office, University Union, room 118. Bring your driver's license or another form of valid, official photo identification. Your OneCard is also your library card.

There are two debit accounts available with your OneCard.

- Dining Points accounts may be used to buy food from any on-campus dining hall or retail location. You receive a 5 percent discount by using your Dining Points account instead of cash.
- Retail/Vending Points accounts may be used for purchases at select vending machines (candy and soda machines), all washers and dryers, the University Store (textbooks, supplies and convenience-store items), Dowell Health Center, Auxiliary Services Business Office.

There are no service charges to operate either account. Deposits can be made by mail, phone, in person or through the Web site, <http://onecard.towson.edu>. Financial aid can be deposited to your OneCard accounts at the Bursar's Office for faster access to your textbook funds.

To open a OneCard account, complete an application form, available from:  
 Auxiliary Services Business Office  
 University Union, Room 118  
 Towson University  
 8000 York Road  
 Towson, MD 21252-0001  
 410-704-2284

## University Store

University Union, first floor  
 410-704-BOOK (2665)  
<http://store.towson.edu>

Regular hours for spring and fall semesters:

Monday-Thursday . . . 8:30 a.m.-7 p.m.  
 Friday . . . . . 8:30 a.m.-4 p.m.  
 Saturday . . . . . 11 a.m.-3 p.m.

*Hours are extended during the first week of classes and move-in weekend.*

*Summer and January hours vary; please call or visit <http://store.towson.edu>.*

The Towson University Store staff takes pride in satisfying the diverse needs of the campus community by offering a variety of goods and services. Distinctive merchandise, which promotes school spirit and recognition, consists of quality TU emblematic adult and children's clothing, stationery, giftware and the official Towson University class ring. Since the University Store is owned and operated by Towson University, all profits generated from the sale of merchandise are reinvested into the university. No student fees are used to support the University Store.

- Required and recommended textbooks and supplies
- Basic school, art and computer supplies
- Quality emblematic gifts and clothing
- Academically priced software (student ID required)
- Film and film processing
- General gifts
- Wide selection of greeting cards
- Snacks and beverages
- Competitively priced CD's and DVD's
- Packing supplies
- Reference materials
- Fiction and non-fiction
- Newspapers and magazines
- Flowers
- Dry cleaning service
- FAX and copy service
- Used Book Buyback
- Graduation regalia, announcements and diploma frames

Visit <http://store.towson.edu> to order merchandise, request a store catalog, and obtain information about textbooks, graduation, location, store hours, refund policy and Used Book Buyback.

The University Store accepts cash, personal checks with proper ID, OneCard Retail/Vending Points, VISA, MasterCard and Discover.

## University Union

Information Desk

410-704-4636

(Building hours vary)

As the social hub of the campus, the University Union hosts a wide variety of activities and events throughout the day and evening. Services located in the Union include the University Store, source of textbooks, course supplies, Towson University apparel and gifts, and a variety of packaged foods and beverages; a Ticketmaster outlet; Paws, a cyber cafe with extensive recreation areas and activities; the offices of Auxiliary Services, which operates campus parking, the dining halls and numerous other services at the university; two automatic-teller machines (ATMs); a full-service bank; a full-service U.S. Post Office; several dining facilities; a gourmet coffee and dessert bar; meeting rooms; and a large lounge. The offices of the Campus Activities Board (CAB), which presents a wide variety of programs for the campus at large; *The Towerlight*, the student newspaper; and many other organizations also are housed in the University Union.

## Women's Center

University Union, Room 311

410-704-4364

f. 410-704-4364

Office Hours:

Monday-Friday, 8:30 a.m.-4:30 p.m.

The Towson University Women's Center has been in continuous operation since 1972. It is located in the University Union Building, 3rd Floor, Room # 311. The Women's Center offers a range of services, programs and events related to women's issues. The safety and well-being of women and all students is of paramount importance in every initiative of the Center. A library and lounging area in the Women's Center is available for use throughout the week. The space also accommodates small group meetings. The Center is open Monday through Friday from 8:30am until 4:30 pm. Support groups meet during the evenings.

## Course Descriptions

Descriptions of 500-800-level courses are listed in this section. Consult the course schedules to determine the courses offered in a particular session. Consecutively numbered courses, when separated by a hyphen, are to be taken in sequence.

### ACCOUNTING (ACCT)

**ACCT 601 FINANCIAL ACCOUNTING FOR NON-ACCOUNTANTS (3)** Basic postulates, principles and assumptions of financial accounting. Includes review of GAAP, external reporting and nonprofit accounting. Prerequisites: A non-accounting degree and admission to the graduate program or permission of the chairperson of the Department of Accounting.

**ACCT 630 FINANCIAL ACCOUNTING ISSUES (3)** Theoretical foundations of generally accepted accounting principles and how they influence practice. Basic postulates, assumptions and standards that underlie measurement criteria and practices of financial accounting. Prerequisites: Undergraduate degree in accounting and admission into MACC.

**ACCT 640 CONTEMPORARY AUDITING ISSUES (3)** This course focuses on the application of generally accepted auditing standards and procedures to myriad contemporary auditing issues. Contemporary issues such as auditor independence, professionalism, ethical dilemmas, analytical procedures, internal control, high-risk clients, earnings manipulation and unique client transactions are addressed in a case format. Cases address actual, not contrived, situations. Prerequisites: Undergraduate degree in accounting and admission into MACC program.

**ACCT 650 MANAGERIAL COST ACCOUNTING (3)** This course applies theoretical knowledge to practical applications. Utilizing the case study approach, this course

examines both the conventional and more recent advanced cost systems, such as activity-based costing, in many different environments. Through the analysis of the problems associated with identifying cost drivers, the determination of the allocation of costs, and the transfer of costs, students will gain an appreciation of the importance and the spectrum of cost-accounting information in the managerial decision-making process. Prerequisite: Undergraduate degree in accounting and admission into MACC program.

**ACCT 701 MANAGERIAL ACCOUNTING FOR NON-ACCOUNTANTS (3)** Principles and techniques underlying managerial accounting. Techniques of standard costing and principles of valuation applicable to internal use of accounting information. Prerequisite: ACCT 601, admission to the graduate program or permission of the Department of Accounting chairperson.

**ACCT 740 FORENSIC ACCOUNTING (3)** Forensic accounting is an interdisciplinary study of social learning/process theories, accounting, law, the systems of internal controls, evidence gathering, interpersonal skills, communication skills and information technology skills. This course provides foundation knowledge about fraud prevention, detection and investigation for an accountant. Prerequisite: ACCT 640 or consent of instructor.

### ADULT EDUCATION (ADED)

**ADED 585 ADULT EDUCATION (3)** Introduction to the historical and philosophical evolution of adult education in the United

States in relationship to current aims, types of programs and issues. Prerequisite: Consent of instructor.

**ADED 587 TEACHING THE ADULT LEARNER (3)** Teaching-learning activities at various levels of adult education. The needs, motivation and abilities of the adult learner are stressed. Prerequisite: Consent of instructor.

## ANTHROPOLOGY (ANTH)

**ANTH 501 ANTHROPOLOGICAL THEORY (3)** Survey of the theoretical contribution made by American, British and Continental anthropologists. Prerequisites: ANTH 207 plus 9 hours of anthropology.

**ANTH 521 GENDER IN CROSS-CULTURAL PERSPECTIVE (3)** Materials from a variety of cultures will be used to illustrate and analyze the roles of women and men within the major institutional aspects — the family, economics, politics and religion. Particular attention will be devoted to the similarities and differences in sex-role patterns within and among the cultures. Prerequisite: SOCI 101 or ANTH 207.

**ANTH 530-539 TOPICS IN ANTHROPOLOGY (3)** Examination of current topics in anthropology, designed for non-majors as well as majors. May be repeated for credit provided a different topic is covered. Prerequisite: ANTH 207.

**ANTH 546 WEALTH, POWER AND POLITICS IN CROSS-CULTURAL PERSPECTIVE (3)** Political systems and the distribution of power in egalitarian, ranked and stratified societies will be examined. Prerequisite: SOCI 101 or ANTH 207.

**ANTH 553 LATINAS IN THE AMERICAS (3)** Anthropological perspective stressing "emic" or insider view, structural constraints of class, gender and race; women's agency is used to understand the diverse experiences of

Latin American women with colonization, independence, revolution, development and structural re-adjustment. Prerequisite: ANTH 207 or 208 or WMST 231 or consent of instructor.

**ANTH 564 RELIGION, MAGIC AND WITCHCRAFT (3)** The world view, beliefs and rituals of selected nonliterate peoples considered with reference to religion as a universal category of human culture. Prerequisite: ANTH 207.

**ANTH 565 NORTH AMERICAN INDIANS (3)** The traditional culture of native North Americans and their sociocultural place in modern American society. Prerequisite: ANTH 207.

**ANTH 566 SOUTH AMERICAN INDIANS (3)** Survey of the cultures of the native peoples of South America in pre-Columbian times and the situation of contemporary tribal peoples of South America. Prerequisite: ANTH 207.

**ANTH 567 PEOPLES OF THE MIDDLE EAST (3)** Survey of the Middle East as a cultural area with emphasis on culture change. Prerequisite: ANTH 207.

**ANTH 568 GLOBALIZATION IN CROSS-CULTURAL PERSPECTIVE (3)** Analyzes various approaches to globalization and examines the consequences of globalization and development among selected contemporary populations, primarily southern countries of the world. Prerequisites: ANTH 207 and SOCI 101.

**ANTH 569 TRADITION AND REVOLUTION IN LATIN AMERICAN SOCIETY (3)** An anthropological perspective will be brought to bear on contemporary Latin American culture and society. The pre-Columbian heritage, the traditional synthesis and the struggle to modernize and develop will be examined. Prerequisite: SOCI 101, ANTH 207 or ANTH 208.

**ANTH 570-579 SPECIAL TOPICS IN ANTHROPOLOGY (1-3)** Examination of current topics in anthropology at the most specialized level. May be repeated for a credit provided a different topic is covered. Prerequisites: ANTH 207 and 6 additional credits of anthropology.

**ANTH 581 ARCHAEOLOGICAL METHODS AND THEORY (3)** Methods of excavating and recording archaeological data. Investigation of problems of current research interest. Prerequisite: ANTH 207.

**ANTH 587 NATIVE AMERICAN ARCHAEOASTRONOMY (3)** Prehistoric roots of astronomy in the New World, with an emphasis on the American Southwest. Celestial motions and the development of a calendar, related folklore and case studies concerning solstice and equinox observations. Prerequisite: ANTH 207 or 208.

**ANTH 588 PEASANT CULTURES (3)** Focus on rural agricultural population of modern states, their traditional lifeways and the changes being wrought by modernization. Prerequisite: SOCI 101 or ANTH 207.

**ANTH 591-592 INTERNSHIP IN ANTHROPOLOGY I, II (3, 3)** Supervised experience in work setting which facilitates understanding of rules and relationships relevant to anthropological inquiry and application of anthropological knowledge. While opportunities to do anthropologically oriented fieldwork in the community will usually be available, placement in agencies dedicated to anthropological inquiry may not always be possible. Students may elect to take one semester for 3 credits (591) or two semesters for 3 credits each (591-592), in one agency for both semesters or in a different agency each semester. No more than 3 credits may be earned in a semester, without consent of the chair, which will be granted only when agency requirements and student needs make it appropriate. Prerequisite: Consent of internship coordinator.

**ANTH 595 INDEPENDENT RESEARCH (3)** Supervised research and anthropological investigation leading to preparation of a research project or a supervised field experience. Prerequisites: At least 12 credits in ANTH and consent of department chair.

## APPLIED INFORMATION TECHNOLOGY (AIT)

**AIT 500 FUNDAMENTALS OF COMPUTER PROGRAMMING AND DATA STRUCTURES (6)** Structured problem solving, algorithm development, fundamentals of computer programming, basic data structures and their implementation, sort and search algorithms, and an introduction to the design and development of information systems. Prerequisite: Admission to AIT program.

**AIT 501 INFORMATION TECHNOLOGY FUNDAMENTALS (4)** Overview of IT concepts; ethical, social and security issues related to IT systems; business information systems; electronic commerce; enterprise resource planning systems; decisions support systems; IT systems development overview; effective use of up-to-date IT tools and application software. The course consists of two hours of lecture and three hours lab work per week. This course will not count as graduate credit toward AIT program or any other graduate program offered at TU. Prerequisite: Admission to AIT program.

**AIT 600 INFORMATION TECHNOLOGY INFRASTRUCTURE (3)** A discussion of information systems architectures including software systems, hardware, operating systems, data bases, object-oriented technology, networking and enterprise-wide systems. Prerequisite: Admission to AIT program.

**AIT 610 SYSTEMS DEVELOPMENT PROCESS (3)** Structured and object-oriented analysis, design and implementation of information systems; distributed information systems; information systems life cycle models, platforms and security. Discussions of

requirements definition, modeling quality assurance and development environments. Prerequisite: AIT 600. May take concurrently with AIT 600.

**AIT 612 INFORMATION SYSTEMS VULNERABILITY AND RISK ANALYSIS (3)** The identification of vulnerabilities and risks inherent in the operation of information systems will be explored. Countermeasures will be discussed and documented in an effort to counter identified vulnerabilities. Prerequisite: AIT 610. May take concurrently with AIT 610.

**AIT 614 NETWORK SECURITY (3)** Network security, hacker attacks, Web security, e-mail security, e-commerce security, systems and operation environment security, database security, algorithms for making data communications secure, encryption and coding techniques and IP security. Prerequisite: AIT 612.

**AIT 616 FUNDAMENTALS OF WEB TECHNOLOGIES AND DEVELOPMENT (3)** Introduction to HTTP protocol, dynamic HTML and common gateway interface (CGI) programming. Study and practice of object-oriented programming concept using Java. Design and implementation of application software including graphical user interfaces (GUIs), concurrent and distributed programming, distributed information systems server architectures, database connectivity and the enterprise packages provided by the Java programming language. Prerequisite: AIT 610. May take concurrently with AIT 610.

**AIT 618 CLIENT/SERVER-SIDE PROGRAMMING ON THE WEB (3)** Discussion of HTTP protocol, dynamic HTML, common gateway interface (CGI) programming, Java applets and server-side programming. Development of information systems incorporating applications executing on a client-server system. Design and implementation of distributed information systems involving the technologies developed for the Web. Prerequisite: AIT 616.

**AIT 620 BUSINESS DATA COMMUNICATIONS (3)** Business data communications, distributed data processing, fundamental data transmission, network types, distributed applications, client/server architecture, network management and security, and Internet /intranet, extranet. Prerequisite: AIT 610. May take concurrently with AIT 610.

**AIT 622 NETWORKS ARCHITECTURE AND PROTOCOLS (3)** Review of fundamentals of network technology, Internet protocols, multicasting, subnet and supernet addressing, routing algorithms, client-server, socket interface, bootstrap and auto configuration, file transfer, e-mail, and Internet security. Prerequisite: AIT 620.

**AIT 624 SOFTWARE ENGINEERING FUNDAMENTALS (3)** Application of formal software engineering principles and practices to the development of information systems, application software and embedded, computer-based systems. A comprehensive description of the software engineering process will be presented along with a discussion of the approaches, methodologies and tools available to the practicing software engineer. Prerequisite: AIT 610.

**AIT 626 ADVANCED TOPICS IN SOFTWARE ENGINEERING (3)** Formal processes leading to developing information system design requirements and specifications; quantitative measures of software attributes including: software cost and schedule estimation, human factors, test and integration, reliability, real-time software, quality assurance and their contributions to a successful software development cycle. Prerequisite: AIT 624.

**AIT 628 INFORMATION TECHNOLOGY & BUSINESS STRATEGY (3)** Design and evolution of technology strategy; the development of the firm's innovative capabilities and implementing a development strategy; changes in business strategies due to the emergence of the Internet and e-business; new business models that have emerged, the



components of such models, the dynamics and appraisal of the models, and the new value configurations. Prerequisite: AIT 610. May take concurrently with AIT 610.

**AIT 630 INFORMATION TECHNOLOGY PROJECT MANAGEMENT (3)** Tools and techniques for the successful management of information technology projects. Topics include project selection and approval, planning, estimation techniques, scheduling methods, budgeting, IT project organizations, and project control and assessment. Prerequisite: AIT 628.

**AIT 632 DATABASE MANAGEMENT SYSTEMS (3)** Study of database management system fundamentals, data models, design, implementation and processing. Most popular database management systems such as Oracle, SQL Server and Access are used throughout the course to illustrate design and implementation of real-world database applications and processing. Prerequisite: AIT 610. May take concurrently with AIT 610.

**AIT 670-679 SPECIAL TOPICS IN APPLIED INFORMATION TECHNOLOGY (3)** Selected topics in applied information technology. Emphasis on new and emerging applications in information technology. Prerequisites: 6 credits of graduate work in AIT and consent of instructor.

**AIT 695 INDEPENDENT STUDY IN APPLIED INFORMATION TECHNOLOGY (3)** Independent supervised study in selected areas of information technology and its application in a variety of fields. Prerequisites: 6 credits of graduate work in AIT and consent of AIT graduate program director.

**AIT 710 CASE STUDIES IN INFORMATION SECURITY (3)** This course consists of a real-world project dealing with information security in distributed information systems including applications of theory and

techniques in information security. Prerequisites: AIT 612, AIT 614 and consent of AIT graduate program director.

**AIT 715 CASE STUDIES IN INTERNET APPLICATIONS (3)** Real-world project dealing with the development of information systems for Internet applications; emphasis on distributed information systems for Web deployment. Prerequisites: AIT 616, AIT 618 and consent of AIT graduate program director.

**AIT 720 CASE STUDIES IN NETWORKING TECHNOLOGY (3)** Real-world projects dealing with the development, installation, and management of application systems or a variety of networks environment; emphasis is on distributed applications for LAN, WAN, Internet and intranet. Prerequisites: AIT 620, AIT 622 and consent of AIT graduate program director.

**AIT 725 CASE STUDIES IN SOFTWARE ENGINEERING (3)** Real-world project dealing with design and development of large-scale information systems including applications of theory and techniques in software engineering. Prerequisites: AIT 624 and AIT 626 and consent of AIT graduate program director.

**AIT 730 CASE STUDIES IN INFORMATION SYSTEMS (3)** Real-world projects dealing with issues related to development, management and maintenance of large-scaled information systems; emphasis is on business information systems for a distributed environment. Prerequisites: AIT 628, AIT 630 and consent of AIT graduate program director.

**AIT 732 ADVANCED DATABASE MANAGEMENT SYSTEMS (3)** This course emphasizes advanced topics in database management systems. Topics include: query processing, concurrency and recovery techniques, advanced database models, object-oriented databases, relational

databases and Web databases, distributed databases, data warehousing and OLAP. Prerequisite: AIT 632.

**AIT 735 CASE STUDIES IN DATABASE MANAGEMENT SYSTEMS (3)** Real-world projects dealing with issues related to development, management and maintenance of large-scaled information systems; emphasis is on the distributed database systems and related security issues. Prerequisites: AIT 632, AIT 732 and consent of AIT graduate program director.

**AIT 880 GRADUATE PROJECT (3)** Students conduct a study in an advanced IT related topic or undertake the analysis, design and implementation of real-world application. The application may be related to an industrial project sponsored by a company or it may be a mutual interest to the student and the supervising faculty. Prerequisites: Completion of at least 18 credits toward M.S. in AIT or COSC.

**AIT 885 PROJECT CONTINUATION (1)** Continuation of graduate project/case study courses. Prerequisite: Previous registration in graduate project/case studies.

## ART (ART AND ARED)

**ART 500 CERAMIC RAW MATERIALS (3)** Lecture and laboratory investigation of ceramic materials as they apply to glazes, clay slips and clay bodies. Tests and problems in ceramic raw materials. Prerequisite: ART 309, ART 310 or equivalent.

**ART 508 CERAMICS: SCULPTURE (3)** Studio experience using a variety of ceramic techniques. Problems in sculptural directions for students' experiences in handbuilding and the potter's wheel. Prerequisite: ART 310 or consent of instructor.

**ART 513 ENAMELING II (3)** Continued studio experience in enameling with emphasis on advanced techniques of cloisonne and plique-a-jour. Independent work and personal

expression are encouraged. Taught concurrently with ART 314. Prerequisite: ART 314.

**ART 514/515/516 ADVANCED STUDIO (2-3, 2-3, 2-3)** Independent work for advanced students in field of special interest. Prerequisite: Must have exhausted other courses in particular field or obtained written consent of instructor. Student must make arrangements in advance of registration with instructor of choice.

**ART 518 JEWELRY II (3)** Intermediate design and studio experience. Directed problems in the techniques of metal construction, forging, stone setting and cold joinery. Prerequisite: ART 318.

**ART 519 METALSMITHING (3)** Lecture, demonstration and directed studio problems in raising, forging, joining and finishing various metals with emphasis on design and creation of hollowware and flatware. The historic and aesthetic aspects of the media are considered. Prerequisite ART 318.

**ART 521 GRAPHIC DESIGN II (3)** Continued studio in drawing, painting and typography. Advanced assignments in preparing brochures and booklets for commercial printing. Prerequisite: ART 225 or consent of instructor.

**ART 529 PAINTING IV (3)** Continued studio experience for advanced students, with emphasis on personal direction. May be repeated for a maximum of 9 total credits. Prerequisite: ART 336.

**ART 530 WATERCOLOR II (3)** Intermediate studio experience: landscape, still life, figures and photographic imagery. Prerequisites: ART 331 and Watercolor I.

**ART 534 PHOTOGRAPHY II (3)** Aesthetic of black-and-white photography using advanced photographic processes and electronic imaging techniques. Prerequisite: ART 234; may be taken concurrently with ART 321.

**ART 535 COLOR PHOTOGRAPHY III (3)** Aesthetic of color photography using advanced color photographic processes, alternative media processes and electronic imaging techniques. Prerequisite: ART 234; may be taken concurrently with ART 321.

**ART 536 PHOTOGRAPHY IV (3)** Advanced research into the aesthetic of photographic imaging through the use of black-and-white and color photo processes, alternative media processes and electronic imaging technology. Prerequisites: ART 334, ART 335, ART 421; may be taken concurrently with ART 421.

**ART 543 COMPUTER MULTIMEDIA I (3)** Exploration of multimedia and authoring techniques as related to interactivity on the computer, using still and animated image creation and manipulation. Prerequisite: ART 321 or ART 360.

**ART 547 SCREEN PROCESS II (3)** Advanced color projects, using direct photo emulsion, and emphasizing integration of hand-drawn image with photo- and computer-generated images. Non-toxic water-based inks.

**ART 549 RELIEF PROCESS II (3)** Traditional and experimental processes. Advanced color assignments using oil and water-based inks.

**ART 555 NEW DIRECTIONS IN PRINT-MAKING (3)** Using technology to link printmaking to digital, photo and Xerox images. Prerequisite: ART 217.

**ART 557 GRAPHIC DESIGN III (3)** Problems in graphic communication on the Macintosh computer, emphasizing individual portfolio development. Prerequisite: ART 417.

**ART 573 ILLUSTRATION II (3)** Continued studio experience in illustration and development of personal approaches in various media. Emphasis on practicing professional

assignments and preparing portfolio. Prerequisite: ART 373 or equivalent.

**ART 578 NEW DIRECTIONS IN PAINTING, EXPERIMENTAL MEDIA AND ART I (3)** Continued studio experience: for advanced student with emphasis on personal direction. Prerequisite: Permission of instructor.

**ART 594 TRAVEL AND STUDY ABROAD (3-6)** Countries and topics to be selected by the department and instructors sponsoring the program. For information, contact the art department early in the semester preceding the semester of travel study. Prerequisite: Consent of instructor and interview.

**ART 608 GRADUATE CERAMICS I (3)** Advanced problems in selected ceramic areas. Repeatable for a maximum of 6 credits with consent of program director and instructor.

**ART 611 GRADUATE DRAWING I (3)** Studio problems in expressive drawing. Repeatable for a maximum of 6 credits with consent of program director and instructor. Prerequisite: ART 211 or consent of instructor.

**ART 614/615/616 GRADUATE STUDIO (2-3, 2-3, 2-3)** Independent work for graduate students in field of special interest. Prerequisite: All courses in field completed and written consent of instructor.

**ART 618 GRADUATE JEWELRY I (3)** Studio problems in shell construction, stone setting and mechanical joinery. Repeatable for a maximum of 6 credits with consent of program director and instructor. Prerequisite: ART 418 or consent of instructor.

**ART 620 GRADUATE GRAPHIC DESIGN I: TYPOGRAPHY (3)** Studio problems in selected typeface areas. Computerized fonts, classics to exotic, will be compared. Repeatable for a maximum of 6 credits with consent of program director and instructor. Prerequisite: ART 317 or consent of instructor.

**ART 622 GRADUATE EXHIBITION DESIGN (3)** Theory, concepts, planning, management, design and installation of art exhibits. Application for professional artists. Prerequisite: Graduate standing.

**ART 629 GRADUATE PAINTING I (3)** Studio problems in painting: current trends, museum visits and lectures. Repeatable for a maximum of 6 credits with consent of program director and instructor. Prerequisite: ART 229 or equivalent.

**ART 630 WATERCOLOR (3)** Trends and outstanding painters and styles. Studio work, museum visits and lectures. Repeatable for a maximum of 6 credits with consent of program director and instructor. Prerequisite: ART 331 or consent of instructor.

**ART 632 GRADUATE COMPUTER ART (3)** Advanced knowledge and aesthetic insight through computer art production. Lectures, demonstrations, gallery visits and studio work in art department lab. Repeatable for a maximum of 6 credits with consent of program director and instructor. Prerequisite: Consent of instructor.

**ART 634 GRADUATE PHOTOGRAPHY I (3)** Studio problems emphasizing personal investigation of the photographic medium as an art form. Repeatable for a maximum of 6 credits with consent of program director and instructor. Prerequisites: ART 334 and consent of instructor.

**ART 635 GRADUATE EXPERIMENTAL DIRECTIONS (3)** Conceptual, installation and performance art; studio projects. Repeatable for a maximum of 6 credits with consent of program director and instructor. Prerequisite: Consent of instructor.

**ART 640 GRADUATE SCULPTURE I (3)** Studio problems in selected sculptural areas. Repeatable for a maximum of 6 credits with consent of program director and instructor. Prerequisite: ART 340, ART 241, ART 339,

ART 342, or any 400-level course; or consent of instructor.

**ART 641 MULTIMEDIA CONCEPT AND THEORY (3)** Advanced study of multimedia concept, theory and aesthetics including research and studio application. Repeatable for a maximum of 6 credits with consent of program director and instructor. Prerequisite: Consent of professor.

**ART 650 GRADUATE INTAGLIO, RELIEF I (3)** Studio problems in intaglio and/or relief processes, including mixed media. Repeatable for a maximum of 6 credits with consent of program director and instructor. Prerequisite: ART 349, ART 449 or equivalent.

**ART 653 GRAPHICS: LITHOGRAPHY, SERIGRAPHY (3)** Studio work for artists with knowledge of lithography and/or serigraphy. Repeatable for a maximum of 6 credits with consent of program director and instructor. Prerequisite: ART 347, or ART 450 or equivalent.

**ART 673 GRADUATE ILLUSTRATION I (3)** Studio problems in the concepts and techniques of objectives rendering, expressive painting and sequential imagery. Repeatable for a maximum of 6 credits with consent of program director and instructor. Prerequisite: ART 473 or consent of instructor.

**ART 678 NEW DIRECTIONS IN PAINTING, EXPERIMENTAL MEDIA AND ART II (3)** Continued studio experience: for advanced student with emphasis on personal direction. Prerequisite: Permission of instructor.

**ART 694 GRADUATE TRAVEL STUDY (3-6)** Global experiences in art. Selected graduate-level research and studio problems in area of special interest. Location and topics to be announced one year prior to travel experience. Course may be repeated. Prerequisite: TU Graduate School acceptance interview and consent of instructor.

**ART 708 GRADUATE CERAMIC II (3)** Studio problems in selected ceramic areas. Prerequisite: ART 608.

**ART 711 GRADUATE DRAWING II (3)** Studio problems in selected drawing areas: awareness, imagination and craftsmanship. Prerequisite: ART 611.

**ART 715 M.F.A. STUDIO I (3)** Independent problems in art. May be repeated for additional credit with art adviser consent. Prerequisite: M.F.A. status and written consent of art adviser.

**ART 718 GRADUATE JEWELRY II (3)** Studio problems in advanced shell construction and surface embellishment. Prerequisite: ART 618.

**ART 720 GRADUATE GRAPHIC DESIGN II: PORTFOLIO (3)** Studio problems in professional portfolio presentation. Prerequisite: ART 620 or consent of instructor.

**ART 729 GRADUATE PAINTING II (3)** Studio problems in selected painting areas: watercolor, oil and other media. Prerequisite: ART 629.

**ART 731 GRADUATE CERAMICS III (3)** Studio problems in selected ceramic areas. Prerequisite: ART 708.

**ART 734 GRADUATE PHOTOGRAPHY II (3)** Studio problems in selected areas of photography with an emphasis on personal investigation of mixed media. Prerequisite: ART 634.

**ART 740 GRADUATE SCULPTURE II (3)** Studio problems in selected sculptural areas. Prerequisite: ART 640 or consent of instructor.

**ART 750 GRADUATE INTAGLIO, RELIEF II (3)** Studio problems in selected printmaking areas: etching, drypoint, aquatint, photo engraving, embossing, collographs, woodcuts, linecuts, wood engraving and subtractive relief. Prerequisite: ART 650.

**ART 781 GRADUATE ILLUSTRATION II (3)** Studio problems in location drawing, figure and costume, experimental media, manuscript interpretation and portfolio analysis. Prerequisite: ART 673.

**ART 783 M.F.A. SEMINAR (3)** Lectures and discussions on the contemporary art scene, aesthetics and art concepts. Oral and written presentations, gallery/museum/studio visits included. Prerequisite: M.F.A. candidate.

**ART 784 SEMINAR ON COLLEGE-LEVEL TEACHING (3)** Organization and management of studio art classes: critiquing skills, creation and presentation of assignments, developing outlines and grading. Prerequisite: Second-year M.F.A. graduate students and M.Ed. graduate students with departmental consent.

**ART 785 M.F.A. STUDIO II (3)** Independent problems in art with special emphasis on preparation for M.F.A. project. Prerequisite: Must be taken concurrently with ART 896 M.F.A. project.

**ART 795 DIRECTED READING IN ART (3)** Extensive reading in an aspect of art. Prerequisites: Graduate standing and consent of art adviser.

**ART 880 M.F.A. PROJECT (6)** Preparation and installation of selected art works in an exhibition format as a final review for the M.F.A. degree. A written supportive paper defining the scope and philosophy of the work. Prerequisite: To be taken concurrently with ART 785 during final semester of the program.

**ART 881 GRADUATE PROJECT IN ART (3)** Exhibition of project plus a paper defining the project's scope and philosophy. Prerequisite: Consent of department chairperson.

## ART EDUCATION (ARED)

**ARED 500-505 SELECTED TOPICS IN ART EDUCATION** (3) Selected topics relevant to Art Education. Special permit required. Prerequisite: Consent of instructor.

**ARED 563 AUTHOR-ILLUSTRATOR: INTEGRATION OF VISUAL AND LANGUAGE ARTS AT THE ELEMENTARY LEVEL** (3) Fiction is examined as illustration and text to develop strategies for enhancing reading and writing skills applicable within art education programs at the elementary level. Prerequisites: Minimum of 2.75 overall GPA and a 3.00 GPA in major. Consent of Art Education program adviser.

**ARED 571 ADVANCED ART EDUCATION** (3) Art education problems at all levels; materials and skills in relation to classroom needs. Prerequisite: ARED 371 or equivalent.

**ARED 607 ARTIST-TEACHER CONNECTION** (3) Exploration of the dual aspects of the art educator as artist/teacher. Includes studio work, museum trips, journal writing, research of cultural/historical expressions, and unit planning relevant to K-12 education.

**ARED 608 INTERDISCIPLINARY ART EDUCATION** (3) Investigation of interdisciplinary connections between art and other subjects in the K-12 curriculum. Includes studio projects and unit and program planning.

**ARED 609 MULTICULTURAL ART EDUCATION** (3) The study of multicultural art. Includes investigation of cultural contexts, studio processes and teaching strategies in grades K-12. Repeatable for a maximum of 6 credits.

**ARED 797 SEMINAR IN ART EDUCATION** (3) Investigation of problems and theories in art education and related fields. Prerequisite: EDUC 601.

**ARED 880 ART EDUCATION PROJECT I** (3) Introduction to art education thesis project. Includes the writing of a proposal, outline of project and research in selected area. Repeatable for 1-3 additional credits with consent of program director and instructor. Prerequisites: EDUC 605 and ARED 797.

**ARED 881 ART EDUCATION PROJECT II** (3) Continuation of the writing of the art education project. Includes implementation, analysis and evaluation of study. Prerequisite: ARED 880.

**ARED 885 ART EDUCATION PROJECT CONTINUUM** (1) Continuation of project work if not completed in ARED 880 or ARED 881.

## ART HISTORY (ARTH)

**ARTH 500 STUDY ABROAD** (1-6) Travel and study abroad; various topics in the history of art. Prerequisite: GPA of 3.25.

**ARTH 585 SEMINAR IN ART HISTORY** (3) Intensive analysis of a single artist or a defined historical period for a stylistic development. Directed reading in both period and contemporary sources. Discussions and museum tours; variety in content each semester. Prerequisites: ARTH 222 and one upper-division art history course or consent of instructor.

**ARTH 595 INDEPENDENT STUDY IN ART HISTORY** (3) Advanced research and examination of a topic in art history. Prerequisites: Art Survey I, Survey II and at least one 300-level art history course.

**ARTH 596 INDEPENDENT STUDY IN ART HISTORY** (3) Advanced research and examination of a topic in art history. Prerequisites: Art Survey I, Survey II and at least one 300-level art history course.

**ARTH 597 INDEPENDENT STUDY IN ART HISTORY** (3) Advanced research and

examination of a topic in art history. Prerequisites: Art Survey I, Survey II and at least one 300-level art history course.

**ARTH 600 STUDY ABROAD (1-6)** Travel and study abroad; various topics in the history of art. Prerequisite: GPA of 3.25.

**ARTH 681 SEMINAR IN ART HISTORY (3)** Research on an architect, artist or historical movement. Course may be repeated. Prerequisite: Graduate standing.

**ARTH 770-779 SPECIAL TOPICS: ART HISTORY (3)** Selected topics designed for independent research in art. Prerequisites: Graduate standing and consent of art adviser.

**ARTH 795 DIRECTED READINGS IN ART HISTORY (3)** Extensive reading on a period, development or aspect of art. Prerequisite: Consent of instructor.

## **AUDIOLOGY COMMUNICATION SCIENCE DISORDERS (ACSD)**

**ACSD 601 INTRODUCTION TO CLINICAL PRACTICUM (1)** Electrophysiologic test procedures used in assessing the peripheral auditory system.

**ACSD 603 ANATOMY AND PHYSIOLOGY OF THE PERIPHERAL AUDITORY SYSTEM (3)** Neurological structure and function of the peripheral auditory and vestibular system. Prerequisite: BIOL 110 and/or consent of the department.

**ACSD 604 NEUROANATOMY AND PHYSIOLOGY OF THE CENTRAL AUDITORY AND VESTIBULAR SYSTEMS (3)** Neurological structure and function of the central auditory nervous systems and the central vestibular pathways and vestibular-ocular reflex. Prerequisites: ACSD 603 and/or consent of instructor.

**ACSD 611 ACOUSTICS AND PSYCHOACOUSTICS (2)** Study of the physical and psychological properties of sound.

**ACSD 621 AUDITORY DIAGNOSTICS I (3)** Administration and interpretation of audiometric procedures for differential diagnosis of auditory pathology. Prerequisites: SPPA 321 and/or consent of department.

**ACSD 645 ADULT AURAL REHABILITATION AND GERONTOLOGY (3)** Audiologist's role in the rehabilitation of adults with hearing loss.

**ACSD 655 HEARING AIDS I: SELECTION, VERIFICATION AND VALIDATION OF AMPLIFICATION (3)** Theoretical foundation and clinical application of amplification process in selection and fitting of hearing aids. Prerequisite: Graduate standing and/or consent of department.

**ACSD 690 AUDIOLOGY CLINIC ON CAMPUS I (3)** On-campus supervised audiology clinical experience in the Towson University Speech-Language-Hearing Clinic with children and adults who have communication impairments. Prerequisites: Completed communication screening, ACSD 601, and/or consent of department.

**ACSD 714 RESEARCH METHODS IN AUDIOLOGY (3)** Application of the scientific method to audiological research; evolution of research design; statistical analysis. Prerequisites: Behavioral Statistics and admission to Doctoral program.

**ACSD 721 AUDITORY DIAGNOSTICS II (3)** Differential diagnosis of auditory pathology based on audiological test battery. The development of appropriate recommendations and patient management. Prerequisite: ACSD 621 and/or consent of department.

**ACSD 731 CALIBRATION AND INSTRUMENTATION (3)** Electracoustic calibration of audiology equipment using appropriate ANSI standards for calibration of the diagnostic and portable audiometers, immitance bridges and soundfield systems. Prerequisite: ACSD 611.

**ACSD 743 ELECTROPHYSIOLOGIC EVALUATION OF THE PERIPHERAL AUDITORY SYSTEM (3)** Electrophysiologic test procedures used in assessing the peripheral auditory system. Prerequisites: ACSD 603, and/or consent of instructor.

**ACSD 744 ELECTROPHYSIOLOGIC EVALUATION OF THE CENTRAL AUDITORY NERVOUS SYSTEM (3)** Electrophysiologic test procedures used in assessing the central auditory nervous system. Prerequisites: ACSD 743 and/or consent of department.

**ACSD 745 AUDIOLOGY CLINIC ON CAMPUS II (3)** Second on-campus supervised audiology clinical experience in the Towson University Speech-Language-Hearing Clinic. Prerequisites: ACSD 690 and/or consent of department.

**ACSD 746 AUDIOLOGY CLINIC ON CAMPUS III (3)** Third on-campus supervised audiology clinical experience in the Towson University Speech-Language-Hearing Clinic with children and adults who have communication impairments. Prerequisites: ACSD 745 and/or consent of department.

**ACSD 747 AUDIOLOGY CLINIC OFF CAMPUS I (3)** Audiology off-campus practicum clinical sequence I. Prerequisites: ACSD 746, a passing score on the Audiology Gateway Assessment (AGA); oral/practical and written portions.

**ACSD 748 AUDIOLOGY CLINIC OFF CAMPUS II (3)** Audiology off-campus practicum clinical sequence II. Prerequisites: ACSD 747 and/or consent of department.

**ACSD 751 HEARING CONSERVATION (3)** Auditory and non-auditory effects of noise exposure, legislative issues, instrumentation, sound measurement and classroom acoustics; the audiologist's role in implementing hearing conservation programs. Hearing conservation practicum is included.

**ACSD 753 PEDIATRIC AND EDUCATIONAL AUDIOLOGY (3)** Principles and techniques for identification and evaluation of auditory status and selection of hearing aids in children; the audiologists role in facilitating medical and educational management, classroom acoustics, behavioral and physiological testing, genetics, embryology, counseling and federal legislation. Prerequisites: ACSD 721 and/or consent of instructor.

**ACSD 755 HEARING AIDS II: HEARING AID MODIFICATION LAB (3)** Amplification system and modification methodologies used to enhance hearing aid performance. Analysis of special purpose circuits, digital and analog.

**ACSD 756 CERUMEN MANAGEMENT (3)** Scope of practice, liability and licensure issues in cerumen management; physiology and pathophysiology; management procedures; universal precautions; and reimbursement issues. Prerequisites: ACSD 603 and/or consent of department.

**ACSD 843 VESTIBULAR ASSESSMENT AND REHABILITATION (2)** Assessment and treatment of balance and related auditory disorders. Prerequisites: ACSD 603, 604 and/or consent of instructor.

**ACSD 844 TINNITUS (3)** Assessment and management of tinnitus. Prerequisites: ACSD 603, ACSD 604, and/or consent of instructor.

**ACSD 847 AUDIOLOGY CLINIC OFF CAMPUS III (3)** Audiology off-campus practicum clinical sequence III. Prerequisites: ACSD 748 and/or consent of instructor.

**ACSD 848 AUDIOLOGY CLINIC OFF CAMPUS IV (3)** Audiology clinic off-campus IV. Prerequisites: ACSD 847 and/or consent of instructor.

**ACSD 853 COCHLEAR IMPLANTS (3)** Audiologic, surgical, educational, communication and rehabilitation aspects of cochlear



implantation. Prerequisite: ACSD 753 and/or consent of instructor.

**ACSD 855 HEARING AIDS III: SEMINAR IN ADVANCED AMPLIFICATION (3)** Advanced signal processing schemes. Non-traditional amplification options and provision of real-world hearing aid fitting experience. Prerequisite: ACSD 655 and/or consent of department.

**ACSD 898 AUDIOLOGY DOCTORAL THESIS (3)** Continued progress toward the completion of the Audiology Doctoral Thesis. May be repeated for a maximum of 6 credits. Prerequisites: ACSD 714, ACSD 796, ACSD 797, ACSD 896, and/or consent of the department.

**ACSD 998 AUDIOLOGY RESIDENCY (9)** Capstone audiological clinical experience. Identification, assessment and treatment of auditory disorders. Prerequisite: Consent of department.

## BIOLOGY (BIOL)

**BIOL 502 GENERAL ECOLOGY (4)** Effects of the abiotic and biotic environment on distribution and abundance of organisms; organization of biological communities, ecosystems, evolution of different reproductive strategies and application of ecological principles to natural resource conservation. Several day-long trips required. Prerequisites: BIOL 205 and/or BIOL 207 or equivalents.

**BIOL 503 ADVANCED GENETICS (3)** Emphasis on the molecular basis of gene action. Discussion of current work and methods related to the problem of gene structure, function and mutation including the translation and regulation of genetic information. Prerequisite: BIOL 309 or BIOL 401/501 or the equivalent.

**BIOL 505 ELECTRON MICROSCOPY (4)** Theory, preparation and application of the electron microscope, including light microscopy. Average of 3 laboratory hours per week. Prerequisite: Consent of instructor.

**BIOL 506 LIMNOLOGY (4)** Physical, chemical and biological factors that affect fresh-water organisms, and some of the standard methods used to analyze these factors. Average of 3 laboratory hours per week. Prerequisites: BIOL 205, BIOL 207 or equivalents; BIOL 402/502 or equivalent recommended.

**BIOL 508 CELL BIOLOGY (4)** The molecular and morphological organization of the cell in relationship to cellular activities with emphasis on eukaryotic cells. Average of 3 hours of laboratory or discussion per week. Prerequisites: BIOL 207 or BIOL 214; CHEM 330 or CHEM 331 or equivalents.

**BIOL 509 LIFE SCIENCES (3)** Living organisms in the environment, emphasizing modes of scientific inquiry and the utilization of living organisms in the classroom. For students pursuing a certificate to teach elementary education; does not count toward M.S. degree in Biology. Prerequisite: BIOL 110 or equivalent. Special permit required from elementary education department.

**BIOL 510 CONSERVATION BIOLOGY (3)** Application of ecological theory to conservation of biological diversity. Exploration of past and present processes leading to and maintaining diversity and how such processes are impacted by human disturbance. Average of three laboratory hours per week. Prerequisites: BIOL 110 (Contemporary and General Biol) or BIOL 202 (BIOL II: Intro to Ecology, Evolution and Behavior) and 10 hours of biology or combination of 10 hours from biology, geography or physical science.

**BIOL 511 WILDLIFE BIOLOGY (4)** Important wildlife species with emphasis on aspects of research and management. Specific techniques and problems are studied in the field. Average of 3 hours per week in laboratory and fieldwork. Prerequisite: BIOL 207 or equivalent.

**BIOL 513 EVOLUTION (3)** Concepts of biological evolution, the history of the development of these concepts and current topics

in evolutionary biology. Prerequisites: BIOL 205 or BIOL 207 or equivalents.

**BIOL 515 MEDICAL MICROBIOLOGY (4)** Pathogenesis of bacterial, viral, rickettsial and fungal diseases with emphasis on medically important bacteria and microbiological techniques. Recommended for students pursuing a career in medical sciences. Either this course or BIOL 518, but not both, may count toward an M.S. degree in Biology.

**BIOL 521 IMMUNOLOGY (4)** Fundamental principles of immunology with emphasis on the nature of antibodies and antigens, blood groups, antibody-antigen reactions, hypersensitivity, autoimmunization, tumor immunology, artificial grafting and the preparation of vaccines. Prerequisite: BIOL 315/515 or 318/518 or equivalent.

**BIOL 525 DISSECTION OF THE UPPER EXTREMITY (2)** Gross anatomical dissection of the human upper extremity including the muscles, nerves and blood vessels which supply the appendage. Special emphasis will be placed on development of techniques which assure careful and accurate dissection. Will be offered only in the Minimester. Prerequisite: BIOL 213 or equivalent, and consent of instructor.

**BIOL 527 NEUROMUSCULAR MECHANISMS OF THE UPPER BODY (2)** Gross anatomy of the human upper extremity and cranial nerves. Upper extremity emphasis includes muscle action, innervation, and major spinal cord pathways. Olfactory, optic, auditory and vestibular functions of cranial nerves are stressed. One lecture and two laboratory periods per week. Prerequisites: Undergraduate course in human or vertebrate anatomy and permission of instructor.

**BIOL 528 VIROLOGY (3)** Pathogenesis, morphology and life cycles of bacterial, animal and/or plant viruses. Emphasis will be on animal viruses causing disease in humans. Prerequisite: BIOL 315/515 or BIOL 318/518 or the equivalent.

**BIOL 530 HORTICULTURE (4)** Plant culture and application to developing desirable planting on home grounds or in public places with examples of appropriate types of plants for specific situations. An average of 3 laboratory hours per week. Prerequisite: BIOL 205 or equivalent.

**BIOL 531 PLANT MORPHOLOGY (4)** A survey of the plant kingdom with emphasis on evolutionary relationships, morphology and life histories as affected by environmental conditions. A Saturday field trip may be required. Average of 3 laboratory hours per week. Prerequisite: BIOL 205 or equivalent.

**BIOL 532 VASCULAR PLANT TAXONOMY (4)** A study of the history and principles of vascular plant systematics with laboratory time devoted to collection and identification of plants in the local flora. An average of 3 laboratory hours per week. Prerequisites: BIOL 205, BIOL 331/531, the equivalents or consent of instructor.

**BIOL 535 PLANT ECOLOGY (4)** Environmental factors and processes which control plant distribution, plant communities and vegetational biomes of North America. An average of 3 laboratory hours per week with two required three-day weekend field trips and a Saturday field trip emphasizing examples from Maryland and the mid-Atlantic states. Prerequisite: BIOL 205 or equivalent.

**BIOL 536 PLANT PHYSIOLOGY (4)** Life functions of plants as related to structure at all levels: cells, organs and the complete organism. Consideration of the interaction of environmental and genetic factors on plant metabolism. Average of 3 laboratory hours per week. Prerequisite: BIOL 205 or equivalent.

**BIOL 539 PLANT ANATOMY (4)** Origin and development of organs and tissue systems in vascular plants. Average of 3 laboratory hours per week. Prerequisite: BIOL 205 or equivalent.

**BIOL 543 FRESHWATER ALGAE (4)** Systematics, structure, ecology, physiology and

life histories of freshwater algae. Laboratory will include methods of collection, culture and experimental study of selected species. Prerequisites: BIOL 205 or equivalent; BIOL 331/531 or equivalent recommended.

**BIOL 549 MARINE BOTANY (4)** The ecology, physiology and identification of marine plants emphasizing the Chesapeake Bay and coastal areas of Maryland. Prerequisite: BIOL 347; BIOL 331/531 or equivalents strongly recommended.

**BIOL 553 INVERTEBRATE ZOOLOGY (4)** Aquatic and terrestrial species of phyla from the Protozoa through the Echinodermata with special emphasis on local forms. Economic, ecological and taxonomic considerations. Average of 3 laboratory hours per week. Prerequisite: BIOL 207 or equivalent.

**BIOL 555 FISH BIOLOGY (4)** Introduction to the evolutionary history, functional biology, ecology and conservation of fishes. Laboratory experiences emphasize both identification of fishes and experiments designed to understand their functional biology. Independent research project and weekend field trips are required. Average of 3 hours of lecture and 3 hours of lab per week. Prerequisite: BIOL 207 and CHEM 111 or equivalents; BIOL 325 or equivalent recommended.

**BIOL 556 ORNITHOLOGY (4)** Evolutionary history, morphology, physiology, behavior and ecology of birds. One daylong weekend field trip and several early-morning weekday field trips required. Prerequisite: BIOL 207 or equivalent.

**BIOL 560 HISTOLOGY (4)** Tissues of the vertebrate body. Average of 2 laboratory hours per week. Prerequisite: BIOL 214 or equivalent.

**BIOL 561 ENTOMOLOGY (4)** Laboratory and field course in insects. Identification and recognition of the more common families and orders and a study of their structure,

behavior, ecology, economic importance and control. Average of 3 laboratory hours per week. Prerequisite: BIOL 207 or equivalent.

**BIOL 563 ANIMAL EMBRYOLOGY (4)** Developmental anatomy and the underlying principles involved in development. This last area will be approached from an experimental base. Average of 3 laboratory hours per week. Prerequisite: BIOL 214 or equivalent.

**BIOL 565 MAMMALIAN PHYSIOLOGY (4)** An advanced physiology course which draws heavily upon knowledge gained in earlier courses to understand the aspects of organismal function unique to mammals. The course attempts to integrate all levels of organismal processes, ranging from the molecular to the whole animal, in order to gain an understanding of mammalian function and place it within an evolutionary and ecological context. The laboratories emphasize hands-on learning and experiences with live animals. Minimum of 3 laboratory hours per week. Prerequisites: BIOL 213 and 214 or BIOL 325 or BIOL 469 or equivalents; CHEM 332 and 351 or equivalents recommended.

**BIOL 567 HERPETOLOGY (4)** Systematic survey of the modern reptiles and amphibians. Emphasis is placed on the evolution of morphological and behavioral traits which have enabled the reptiles and amphibians to successfully exploit their individual habitats. Laboratory includes systematic classification, student seminars and field work. Average of 3 laboratory hours per week. Prerequisite: BIOL 207 or equivalent.

**BIOL 568 ENDOCRINOLOGY (3)** Endocrine mechanisms regulating homeostasis and functional integrity of animals with emphasis on vertebrates. Prerequisite: BIOL 214 or equivalent.

**BIOL 569 COMPARATIVE ANIMAL PHYSIOLOGY (4)** Functions, interactions and regulation of organ systems in animals

and their roles in sensory perception and integration, movement, oxygen utilization, energy procurement, temperature regulation and water metabolism. Prerequisites: BIOL 213, BIOL 214 and BIOL 325 or equivalents.

**BIOL 571 ANIMAL BEHAVIOR (4)** Ethological approach to the comparative study of animal behavior. Major emphases are on the adaptive function of behavior and classification of behavioral mechanisms. Average of 3 laboratory hours per week. Prerequisite: BIOL 207 or equivalent.

**BIOL 585 SEMINAR IN APPLIED BIOTECHNOLOGY (3)** Current research articles using applications of biotechnology are reviewed.

**BIOL 594 TRAVEL STUDY (1-3)** A detailed investigation of field-oriented problems in biology away from the TU campus. Location and topics to be selected by the department and instructors sponsoring the program. Prerequisite: Consent of instructor; may be repeated for a maximum of 3 credits.

**BIOL 601 CURRENT TOPICS IN BIOLOGY (1-4)** Current topics in a specific area of biology. The area will vary each time the course is offered. May be repeated. Prerequisite: A suitable background in the area emphasized.

**BIOL 602 MOLECULAR BIOLOGY (3)** Overview of the base principles of molecular biology including: macromolecules, nucleic acid/protein interactions, replication, transcription, translation, mutations, DNA repair mechanisms, gene regulation and tools and applications of recombinant DNA technology.

**BIOL 604 MECHANISMS IN ANIMAL PHYSIOLOGY (3)** Functional design of animal organ systems and discussion of selected adaptations permitting survival in challenging environments. Prerequisite: Students must meet the requirements for admission to the master's degree program in Biology.

**BIOL 606 BIOCHEMICAL ADAPTATION (3)** Physiological adaptations, primarily of animals at the cellular, organ system, and whole organism level, to changes in environmental factors such as salinity, temperature, oxygen and light.

**BIOL 607 PHYSIOLOGICAL ANIMAL ECOLOGY (4)** Physiological responses of animals to varying ecological conditions. Prerequisite: BIOL 604, BIOL 610 or equivalent.

**BIOL 609 COMMUNITY ANALYSIS AND BIOASSESSMENT (4)** Aquatic communities are used to illustrate principles of experimental design, sampling and statistical analysis. Emphasis on use of multivariate statistics for description of community structure and environmental analysis. Includes laboratory experiments and field sampling. Prerequisite: BIOL 610 or ENVS 604 or equivalent at the upper-undergraduate level.

**BIOL 610 POPULATION AND COMMUNITY BIOLOGY (3)** Processes in biological populations, including population growth, competition and predation, analyzed by the use of conceptual-systems models and simple mathematical models. Prerequisite: BIOL 401/501, BIOL 402/502, BIOL 413/513 or equivalents.

**BIOL 612 MOLECULAR ECOLOGY AND EVOLUTION (3)** Use of molecular techniques in ecology and evolution. Application of DNA sequencing, PCR analysis and DNA fingerprinting to understanding genome evolution, the species concept, evolutionary basis of behavior, population structure and gene flow and efforts in species conservation. Reading and discussion of recent scientific literature. Prerequisites: BIOL 602 or permission of instructor.

**BIOL 614 APPLIED BIOTECHNOLOGY (3)** Overview of basic recombinant DNA technology, gene expression and regulation; medical, agricultural and ecological examples of applied biotechnology; regulations, risks, benefits and bioethics of biotechnology.

**Prerequisite:** BIOL 602 or permission of instructor.

**BIOL 615 PATHOGENIC MICROBIOLOGY (3)** Pathogenic bacteria and viruses, including virulence of causative agents, epidemiology, pathogenesis, diagnosis, prevention and treatment of representative bacterial and viral diseases. **Prerequisite:** BIOL 421/521, BIOL 315/515 or 318/518 or equivalents.

**BIOL 616 MEMBRANE BIOLOGY (3)** Structure, function and biogenesis of biological membranes. Emphasis on role of membrane in cellular homeostasis, energy transduction and interaction with the extracellular environment. Multidisciplinary perspective taken, drawing on information from molecular biology, cell biology and biophysics. Extensive use of current literature. **Prerequisite:** BIOL 602 or permission of instructor.

**BIOL 617 MOLECULAR MECHANISMS OF DEVELOPMENT (3)** Molecular and cellular aspects of developmental processes. Emphasis on vertebrate development. **Prerequisite:** BIOL 602.

**BIOL 618 MOLECULAR MEDICINE (3)** Molecular biology as it applies to medicine, including molecular genetic approaches to clone/detect disease genes, analysis of gene function based on human/microbial homologies, prenatal and neonatal diagnosis/screening, tracking infectious disease outbreaks, molecular therapies for disease and impact of human genome project. Ethical issues raised by application of molecular methodology also discussed. **Prerequisite:** BIOL 602 or permission of instructor.

**BIOL 622 GENE EXPRESSION AND REGULATION (3)** Examining how changes at the DNA level to the protein level alter the resulting gene's final expression. Special emphasis on eukaryotic mRNA stability and translatability and on eukaryotic post-translational modifications. **Prerequisite:** BIOL 602 or permission of instructor.

**BIOL 635 PHYSIOLOGICAL PLANT ECOLOGY (3)** Interactions of plants with the physical environment at a biochemical, physiological and organismal level of integration. **Prerequisite:** BIOL 402/502 or BIOL 435/535 or BIOL 436/536 or equivalents.

**BIOL 636 PLANT PHYSIOLOGICAL ECOLOGY: METHODS AND INSTRUMENTATION (2)** Methods of analysis of plant physiological responses to environmental factors. Theory, application and interpretation of measurements of plant water relations, nutrient uptake, photosynthesis and growth. **Prerequisite:** BIOL 635 or concurrent enrollment.

**BIOL 651 OSMOREGULATION (3)** Mechanisms of salt and water regulations in animals. Emphasis on structural and functional modifications in representative species which permit survival in osmotically stressful environments. **Prerequisite:** BIOL 604.

**BIOL 653 BIOLOGY OF FRESHWATER INVERTEBRATES (4)** Biology of free-living freshwater macro-invertebrates is emphasized. Extensive field and laboratory work deals with morphological, taxonomic, ecological and behavioral features of selected macro-invertebrates. Students must demonstrate a knowledge of scientific literature pertaining to identification of selected genera, demonstrate identification skills via laboratory practicals and collection of local macro-invertebrate fauna. Field trips, collection of macro-invertebrates identified to the genus level and student seminars are required. **Prerequisites:** BIOL 353/553 and 461/561 or equivalents recommended.

**BIOL 701 NON-THESIS RESEARCH (1-3)** Field or laboratory research in addition to and/or unrelated to any thesis research. **Prerequisite:** Student must submit research proposal prior to enrollment. Requires special permit from graduate program director. May be repeated for a maximum of 6 credits.

**BIOL 703 INDEPENDENT STUDY (1-3)** Independent exploration of the concepts,

research techniques and recent discoveries in a sub-discipline of the biological sciences in collaboration with a faculty mentor. Prerequisite: Student must submit study proposal prior to enrollment. Requires special permit from graduate program director. May be repeated for a maximum of 3 credits.

**BIOL 731 PLANT COMMUNITY ECOLOGY (3)** Analysis of plant community ecology through the historical development of the concept of plant succession. Prerequisites: BIOL 402/502 or 435/535 or equivalents, BIOL 610 and 9 graduate credits in biology.

**BIOL 781 RECENT ADVANCES IN BIOLOGY (4)** Factual and technological advances in the following five areas: botany, zoology, ecology, genetics and evolution, cellular and molecular biology. Prerequisite: 9 graduate credits in biology.

**BIOL 796 PROFESSIONAL ASPECTS OF BIOLOGY (2)** Information, techniques and skills useful in completing an M.S. degree, gaining employment and functioning as a professional biologist, or gaining access to Ph.D. programs. Topics include literature retrieval, the publication process, obtaining funds for research, presentations at national meetings, job-hunting, and professional ethics.

**BIOL 797 GRADUATE SEMINAR (1)** Student reports and discussion dealing with biological research. An outline of the seminar and bibliography are required. A maximum of 1 credit is allowable for an M.S. degree in Biology.

**BIOL 897 THESIS (6)** An original investigation to be pursued under the direction of one or more faculty members. Credit granted after thesis acceptance.

**BIOL 898 THESIS (3)** The previous course, BIOL 897, taken over two consecutive semesters.

**BIOL 899 THESIS CONTINUUM (1)**

## **CHEMICAL DEPENDENCY COUNSELING AND EDUCATION (CDCE)**

**CDCE 502 HEALTH AND SOCIAL WELFARE PROMOTION: HEALTH COMMUNICATION (3)** Analysis of program planning, evaluation and communication theory with an emphasis on the persuasion process to improve health and other social conditions of living. Application of theoretical principles will be augmented with specific skills development to construct, implement and evaluate promotion efforts. Prerequisite: HLTH 101 or equivalent.

**CDCE 503 COGNITIVE BEHAVIORAL TREATMENT OF ADDICTIONS (3)** Issues of substance abuse, referrals, clinical assessments and developing cognitive-behavioral counseling strategies for successful intervention. Prerequisites: 6 lower-level credits in chemical dependency counseling.

**CDCE 505 PROFESSIONAL STANDARDS AND ETHICAL RESPONSIBILITIES (3)** Focus on the professional standards and ethical guideline and principles that underlie professional practice in chemical dependency and other related counseling fields. Prerequisite: 6 lower-level credits in chemical dependency counseling.

**CDCE 570-575 SPECIAL TOPICS IN CHEMICAL DEPENDENCY (3)** Focuses on contemporary issues related to chemical dependency counseling, rehabilitation and/or education. Prerequisite: 6 lower-level credits in chemical dependency counseling or education.

## **CHEMISTRY (CHEM)**

**CHEM 500 SEMINAR IN CHEMISTRY (1)** Introduction to chemical literature. Attendance at all seminars and presentation of seminars to the chemistry department on topics selected by the chemistry faculty or selected by the student and approved by the

faculty. One and one-half hour seminar period. Prerequisites: CHEM 213/215, CHEM 332: Co-requisite: CHEM 340 or 341 or 345 or CHEM 342 or 345; offered each semester.

**CHEM 501-504 SPECIAL PROBLEMS IN CHEMISTRY (1-3)** A laboratory or library problem in any particular area of chemistry to be selected by the student in consultation with the instructor. Students are required to submit a written report. Prerequisite: Written consent of instructor. Offered each semester; may be repeated for credit.

**CHEM 505-508 INTRODUCTION TO RESEARCH IN CHEMISTRY (1-3)** Individual laboratory and/or library investigation in research interest of an instructor. At the completion of a project the student must write a formal research paper on the work done and the principles involved. The student's performance will be evaluated by the research director and selected members of the faculty. Prerequisite: Consent of instructor. Offered each semester; may be repeated for credit.

**CHEM 518 ADVANCED ANALYTICAL CHEMISTRY (3)** A special topics course dealing with the theory and application of more recent and specialized techniques of chemical separation and analysis. Three lecture hours. Prerequisite: CHEM 415 or CHEM 411. Not open to students with credit for CHEM 412.

**CHEM 534 ADVANCED ORGANIC CHEMISTRY LABORATORY (2)** The design of organic synthesis, advanced laboratory techniques and determination of structure by chemical and spectroscopic means will be taught by laboratory problems and discussion. One lecture hour and 6 laboratory hours. Prerequisites: CHEM 332 and consent of instructor.

**CHEM 535 ADVANCED ORGANIC CHEMISTRY (3)** Advanced topics will include several of the following: molecular orbital theory, pericyclic reactions, photochemistry and determination of reaction mecha-

nisms by kinetics, linear free energy relationships, acid-based properties, acid-based catalysis, detection of intermediates, stereochemistry, etc. Three lecture hours. Prerequisites: CHEM 332 and CHEM 342 or 346; CHEM 340 or 341 or 345 recommended.

**CHEM 536 ETHICS IN THE PHYSICAL SCIENCES (2)** Discussion of the integrity of the scientific literature and the responsibilities of scientists to peers, proteges, employers and the public. Examination of principles and of case studies in the physical sciences. Not open to students who have taken WRIT 301.

**CHEM 546 ADVANCED PHYSICAL CHEMISTRY (3)** Two topics in the area of physical chemistry to be covered in-depth. Topics will be selected by the instructor after consultation with the students. Examples of possible topics are: formal wave mechanics, bonding, solid state, liquid state, surface chemistry, colloids, high polymers, rheology, ionic conductivity, electrochemical cells, scattering phenomena, statistical thermodynamics. Three lecture hours. Prerequisites: CHEM 340 or 341 or 345 and CHEM 342 or 346.

**CHEM 562 CHEMICAL AND BACTERIOLOGICAL STUDIES ON WATER POLLUTION (3)** Deals mainly with water pollution: causes, effects and cures. Considers details of water and waste treatment. Emphasizes technical details of analysis of water. Concerns standards of water purity and variables involved. Demonstration of analytical methods to be given. Case studies and applications are viable approaches to this topic. Three lecture hours. Prerequisites: BIOL 102 and CHEM 101 or 110. Offered through College of Graduate Education and Research (evening and summer) if sufficient demand.

**CHEM 564 CHEMISTRY OF DANGEROUS DRUGS (3)** A study of the chemistry, methods of detection and analysis of narcotics, depressants, stimulants and hallucinogens. Also, the influence of physicochemical

properties upon the pharmacological effects of drug-receptor interactions. Historical, forensic and socio-economic implications associated with drug abuse will also be reviewed. Three lecture hours. Prerequisites: CHEM 330 and CHEM 351 or CHEM 331/332; CHEM 210 or CHEM 213/215 recommended.

#### **CHEM 566 POLYMER CHEMISTRY (3)**

Course will cover the following aspects of polymers: structure, physical properties, methods of preparation, rheology, mechanical properties, degradation and stabilization, application and fabrication and related contemporary topics. Carbon chain and heterochain polymers will be discussed and spectroscopic methods of analysis (IR, UV and NMR) will be presented. Three lecture hours. Prerequisites: CHEM 101 or 110, CHEM 102 or 111, CHEM 331 and CHEM 332.

#### **CHEM 568 FORENSIC CHEMISTRY (3)**

Introduction to chemical and physical analyses used by a modern crime laboratory in the evaluation of physical evidence encountered in criminal acts. Areas of concentration will include drug analysis toxicology, forensic serology, explosives analysis, arson examination, firearms and tool marks and trace evidence. Emphasis will be placed on the value of such examinations as presented by the expert witness in criminal trial. Three lecture hours. Prerequisites: CHEM 101 or 110, CHEM 102 or 111, CHEM 210 or CHEM 213/215, CHEM 330 or CHEM 332.

#### **CHEM 580 CHEMICAL TOXICOLOGY (3)**

Study of the fate, effects and mechanisms of action of toxicants: physical and biological factors affecting transport, transformation and toxicity of chemical stressors: emphasis on forensic and environmental applications. Prerequisites: CHEM 351, BIOL 201, or consent of instructor.

#### **CHEM 584 MODERN CHEMISTRY FOR TEACHERS: PRINCIPLES AND APPLICATIONS I (3)**

A survey of principles and

applications of chemistry for secondary school teachers. Lecture: chemical reactions, stoichiometry, atomic structure and theories of chemical bonding. Laboratory: an examination of experiments suitable for the secondary school curriculum with emphasis upon laboratory safety. Two lecture hours and two hours of laboratory-discussion. Prerequisites: High school algebra, experience as secondary school teacher and consent of instructor.

#### **CHEM 585 PRINCIPLES OF CHEMISTRY (3)**

A survey of principles and applications of chemistry for secondary school teachers. Lecture: properties of solutions, acid/base theories, reaction kinetics, chemical equilibrium, thermodynamics, state of matter and nuclear chemistry. Laboratory: an examination of experiments suitable for the secondary school curriculum with emphasis upon laboratory safety. Two lecture hours and two hours of laboratory-discussion. Prerequisites: CHEM 383 or CHEM 584 and consent of instructor.

#### **CHEM 586 LABORATORY EXPERIMENT DESIGN (3)**

Experimental chemistry for secondary school teachers: principles of laboratory measurements, obtaining and interpreting experimental data, laboratory techniques. Prerequisite: CHEM 585.

#### **CHEM 587 PHYSICAL CHEMISTRY PRINCIPLES (3)**

A survey of principles and applications of physical chemistry for secondary school teachers. Chemical thermodynamics, descriptions of solutions, kinetic theory of gases, reaction rates and mechanisms, and introduction to quantum mechanics. Three lecture hours. Prerequisites: CHEM 385 or CHEM 586 and consent of instructor.

#### **CHEM 588 ORGANIC CHEMISTRY CONCEPTS (3)**

Organic chemistry for secondary school teachers. Functional groups, reaction mechanisms, natural products. Simple and complex techniques of purification, analysis and synthesis. Three lecture hours and one hour of laboratory. Prerequisites:



**CHEM 386 or CHEM 587** and consent of instructor.

**CHEM 589 BIOCHEMISTRY PRINCIPLES (3)** Principles and applications of biochemistry for secondary school teachers. Structures and functions of biological molecules, enzymes, metabolic energies and nucleic acids. Three lecture hours. Prerequisites: CHEM 387 or CHEM 588 and consent of instructor.

**CHEM 590 ANALYTICAL CHEMISTRY PRINCIPLES (3)** Modern instrumental methods for secondary school teachers. In integrated laboratory-lecture course discussing four major instrumental methods and their uses in solving typical chemical problems: spectrophotometry, nuclear magnetic resonance spectroscopy, mass spectrometry and chromatography. Two lecture hours and two hours of laboratory-discussion; short field trips may be required. Prerequisites: CHEM 388 or CHEM 589 and consent of instructor.

**CHEM 601 BIOCHEMISTRY AND MOLECULAR BIOLOGY (3)** Protein and nucleic acid structure, enzyme catalysis, energetics of metabolism, transmission of genetic information, application in biotechnology and societal implications. Prerequisite: CHEM 588 or placement through competency exam.

**CHEM 602 MEDICINAL CHEMISTRY (3)** A study of the chemistry of compounds from natural, semi-synthetic and synthetic sources used as medicinal agents. Physical and chemical properties associated with pharmacological activity. Introduction to medicinal agents derived from plants such as glycosides, volatile oils, and natural herbs will be included. Prerequisite: CHEM 588 or placement through competency exam.

**CHEM 603 INORGANIC AND MATERIALS CHEMISTRY (3)** Treatment of modern concepts of bonding and structure in inorganic Chemistry with emphasis on applications to

technologically important materials and their role in society. Prerequisite: CHEM 641.

**CHEM 610 APPLICATIONS OF ANALYTICAL CHEMISTRY (3)** The application of chemical principle to the analysis of real-world substances using such techniques as selective chemical reactivity, light absorption, and chromatography. Prerequisite: CHEM 641

**CHEM 641 PHYSICAL CHEMISTRY CONCEPTS (4)** Chemical theory, experimental methods and solutions and phases reaction kinetics, applications of quantum mechanics, and instrumental techniques. Prerequisites: CHEM 585 or placement through competency exam, MATH 273 is strongly recommended.

**CHEM 645 MOLECULAR SPECTROSCOPY (3)** The coverage of this course will include quantum mechanical treatments of molecular spectroscopies. Practical examples of these spectroscopic techniques will include rotational spectroscopy and microwave heating, infrared spectroscopy and the green house effect, UV-visible spectroscopy and ozone depletion, NMR spectroscopy and magnetic resonance imaging, lasers and their use in medicine and industries. Prerequisite: CHEM 641

## COMMUNICATION STUDIES (COMM)

**COMM 518 COMMUNICATION TRAINING AND DEVELOPMENT (3)** Instructional strategies for implementing objectives, specifying and evaluating results. Prerequisite: COMM 115 and COMM 216 or COMM 331.

**COMM 519 ORGANIZATIONAL COMMUNICATION (3)** Superior-subordinate communication, message dissemination, information overload, trust levels and work group interaction. Prerequisite: COMM 131.

**COMM 520 COMMUNICATION IN THE LEGAL PROCESS (3)** Focus on communication questions and skills by lawyers, judges, litigants and jurors in criminal and civil justice. Survey of research related to verbal and nonverbal aspects of communication as they apply to the legal concerns of interview, negotiation and litigation. Prerequisite: Consent of instructor.

**COMM 522 CONFERENCE AND MEETING MANAGEMENT (3)** Communicative details in preparing for and conducting events. Prerequisite: COMM 419/519 may be taken concurrently.

**COMM 601 THEORIES AND RESEARCH IN INTERCULTURAL COMMUNICATION (3)** Analysis of cross-cultural interaction among people in multicultural societies or multicultural organizations. Prerequisite: COMM 379 or MCOM 633 or consent of instructor.

**COMM 602 PUBLIC ADVOCACY AND CONFLICT MANAGEMENT (3)** Theoretical perspectives and practical experience in managing conflict in public communication settings. Focus on presentation advocacy, audience adaptation, small-group communication and conflict resolution. Prerequisite: At least 15 credits of graduate work completed.

**COMM 610 THE TRIAL PROCESS (1)** Civil and criminal trial procedures and legal terminology. Differential tuition applies.

**COMM 611 THE PRACTICE OF LITIGATION CONSULTING (1)** History and types of trial consulting. Techniques of consulting and training. Differential tuition applies.

**COMM 612 JURY BEHAVIOR (1)** Research review of small group dynamics and decision-making with particular focus on the American jury. Differential tuition applies.

**COMM 620 LITIGATION CONSULTING QUALITATIVE RESEARCH METHODS (1)** Trial simulations, focus groups, jury re-

convening and attorney/witness preparation. Prerequisites: COMM 520, COMM 610, COMM 611 and COMM 612. Differential tuition applies.

### **COMM 621 LITIGATION CONSULTING QUANTITATIVE RESEARCH METHODS**

**(1)** Research design, sampling and interference, surveys and opinion polling, content analysis and data analysis for legal settings. Prerequisites: COMM 520, COMM 610, COMM 611 and COMM 612. Differential tuition applies.

**COMM 622 PROFESSIONAL ISSUES IN LITIGATION CONSULTING (1)** Evaluation of practices and ethical concerns. Litigation consulting as a business. Prerequisites: COMM 520, COMM 610, COMM 611 and COMM 612. Differential tuition applies.

**COMM 781 INTERNSHIP IN COMMUNICATION CONSULTING (3)** Supervised work in a professional consulting setting. Prerequisites: Completion of at least 9 graduate credits in communication studies and consent of program director.

**COMM 795 INDEPENDENT STUDY IN COMMUNICATION STUDIES (1-6)** Directed study through readings, projects, papers or seminars. May be repeated for a maximum of 6 credits. Prerequisite: 15 credits of graduate-level communication or mass communication courses and consent of instructor.

## **COMPUTER SCIENCE (COSC)**

**COSC 304 FUNDAMENTALS OF COMPUTER SCIENCE (6)** This course is designed for graduate students to learn programming and computer architecture. Software topics include: structured problem solving, algorithm development, basic data structures and their implementations, sort and search techniques, and introduction to software development. Hardware topics include: digital logic and digital systems, combinatorial and sequential logic, computer arith-

metic, the central processing unit, assembly level machine organization, memory system organization, interfacing and communications. Corequisite: MATH 363.

**COSC 305 FUNDAMENTALS OF DATA STRUCTURES AND ALGORITHM ANALYSIS** (6) This course is designed for graduate students to provide them with the necessary background in data structures and algorithm analysis. Topics include: objects and abstract data types, dynamic variables and pointers, recursion, sort and search algorithms, linear and non-linear structures such as linked lists, trees and graphs, hashing, algorithms time complexity analysis, object-oriented design and programming. Prerequisite: COSC 304.

**COSC 519 OPERATING SYSTEMS PRINCIPLES** (3) An overview of the principles of operating systems. Topics include multiple processes, process synchronization and intercommunication, resource allocation, memory management, processor scheduling and I/O device management. Prerequisite: COSC 304.

**COSC 571 COMPUTER PERFORMANCE EVALUATION** (3) Computer system performance evaluation methodologies, techniques and tools including different types of monitors as a measurement tool, workload characterization, important performance indices, analytic modeling with particular emphasis on the application of the operational queuing network modeling techniques to performance analysis and technical aspects of computer selection. Prerequisites: MATH 363 and COSC 439/519 as prerequisite or corequisite.

**COSC 578 DATABASE MANAGEMENT SYSTEMS I** (3) Build theoretical foundation for database management systems, study different database models, relational algebra, relational calculus, SQL, ER, EER models, structured query formulations, database design, analysis and modeling, functional dependencies and normalization, and overview

of next generation database management systems. Prerequisite: COSC 304.

**COSC 581 ARTIFICIAL INTELLIGENCE** (3) A survey of the problems and techniques involved in producing or modeling intelligence in computers. Particular emphasis will be placed on representation of knowledge and basic paradigms of problem solving. Topics include game playing, theorem proving, natural language and learning systems. Prerequisite: COSC 304.

**COSC 583 DESIGN AND ANALYSIS OF ALGORITHMS** (3) Algorithm design such as heuristics, backtrack programming, branch and bound, recursion, simulation and conquer, balancing and dynamic programming. Efficiency of algorithms-NP-complete problems. Prerequisite: COSC 336 or COSC 304.

**COSC 600 ADVANCED DATA STRUCTURES AND ALGORITHM ANALYSIS** (3) Data abstraction, linear data structures, file organization and access methods, memory management, advanced internal and external sort and search algorithms and the trade-offs involved in the use of different data organization. Prerequisite: COSC 305 or computer science graduate standing.

**COSC 602 COMPUTER VISION AND IMAGE PROCESSING** (3) The study of image acquisition, representation and pattern recognition, edge detection for computer vision. Topics to be covered include digital image formats, image storage and display, bilevel image processing, measurable properties of objects, grey-level image processing, image classification and object recognition. Prerequisite: COSC 305.

**COSC 609 SOFTWARE PROJECT MANAGEMENT** (3) Factors necessary for the successful management of information systems development or enhancement projects. Both technical and behavioral aspects of project management are discussed. Topics include project management concepts, needs

identification, the software project manager, software teams, software project organizations, project communications, software project planning, scheduling, control and associated costs. Project-management software tools will be an integral part of the course. Prerequisite: COSC 305 or equivalent, or consent of instructor.

**COSC 611 COMPUTER SIMULATION (3)** Continuous and discrete event systems simulation application, implementation, role of modeling and languages, experimental design, data collection, verification, random variable generation, Monte Carlo methods for performance evaluation, sensitivity analysis and optimization. Prerequisite: COSC 305.

**COSC 612 SOFTWARE ENGINEERING I (3)** Formal software engineering principles and practices and their application to the development of computer-based systems. Prerequisite: COSC 600.

**COSC 614 SOFTWARE ENGINEERING II (3)** Formal process leading to requirements, design and test specifications, quantitative measures of useful software parameters, review of software systems components and complete design and test processes. Prerequisite: COSC 612.

**COSC 617 ADVANCED WEB DEVELOPMENT (3)** Design and implementation of distributed information systems involving the technologies developed for the World Wide Web (WWW). Emphasis will be given to server architectures, database connectivity and the enterprise packages provided by the Java programming language. Prerequisites: COSC 600 and COSC 457/578.

**COSC 638 ADVANCED COMPUTER ARCHITECTURES (3)** Design principles for multiprocessor and RISC machines, comparison between RISC and CISC architectures, multiprocessor interconnection networks, memory organizations, parallel algorithms

for sorting, image processing, FFT and various applications, data flow computers and VLST computations. Prerequisite: COSC 304.

**COSC 639 OPERATING SYSTEMS II (3)** Implementation of operating systems for on-line multiprogramming environment. Primary and secondary storage management techniques, file security, data integrity and a detailed study of operating systems such as UNIX. Prerequisite: COSC 439/519 or equivalent.

**COSC 641 FUNDAMENTALS OF E-COMMERCE (3)** A broad overview and discussion of the technologies relevant to electronic commerce, including communication networks and the Internet, Web programming languages, computer security, electronic payments, multimedia databases and distributed transaction processing, and legal and ethical issues. Prerequisite: COSC 600 or equivalent.

**COSC 643 INTERNET SUPPLY CHAIN MANAGEMENT (3)** E-business strategies, Web-based system architecture, collaboration techniques among buyers and sellers. business-to business system requirements analysis in the context of supply chain management. Focus on the technical aspects of supply chain management system, which include message passing framework, XML, DTD, XSL, XSLT, XPath, Web-based database manipulation, and VPN. Managerial aspects of e-business as well, which include the integration of e-business systems and back-end systems such as enterprise resource planning ERP systems and business security. Student will implement a B2B site as a team project. Prerequisite: COSC 600.

**COSC 645 APPLIED CRYPTOLOGY (3)** A broad introduction to cryptography and its application to computer-network security services and mechanisms, such as confidentiality, digital signature, access control and electronic payments. Analysis of software implementations of cryptographic algo-

gorithms and network-security protocols. Prerequisite: COSC 600.

**COSC 647 APPLICATION SOFTWARE SECURITY (3)** Security concepts in developing software applications. This course discusses design principles for secure software development, and some of the security issues in current programming and scripting languages, database systems and Web servers. Prerequisites: COSC 578 and COSC 600.

**COSC 650 COMPUTER NETWORKS (3)** Computer networking concepts and technologies. Architectures and protocols, LANS, Internetworking, and applications. Prerequisite: COSC 305.

**COSC 657 DATABASE MANAGEMENT SYSTEMS II (3)** Relational database systems application, implementation, management, administration, design, advanced data modeling, object-oriented databases, deductive databases, query optimization, functional dependencies, concurrency, security and integrity. Prerequisite: COSC 457/578 or equivalent.

**COSC 661 ARTIFICIAL INTELLIGENCE PROGRAMMING AND ADAPTIVE SYSTEMS (3)** Major differences between AI and conventional programming, symbolic programming techniques and adaptive systems, PROLOG and LISP. Prerequisite: COSC 461/581.

**COSC 665 EXPERT SYSTEM DESIGN AND DEVELOPMENT (3)** Approaches and methods employed in expert system design and development analysis of selected expert systems, prototyping and presentation. Prerequisite: COSC 581 or equivalent.

**COSC 670-679 SPECIAL TOPICS IN COMPUTER SCIENCE (3)** Reading and study in selected topics in the field of computer science; emphasis is on an increased knowledge of computer science. A project or paper is required. Prerequisite: COSC 600 or equivalent and consent of instructor.

**COSC 680 SEMINAR IN COMPUTER SCIENCE (1)** Presentation and discussion of research trends and advanced topics in computer science. Students may enroll in this course up to three times for a total of 3 credits. Prerequisite: Consent of instructor.

**COSC 683 SECURITY AND INTERNET ALGORITHMS (3)** State of the art trends in designing algorithms for the Internet and security. Typical topics include network routing, Web search engine algorithms, data compression algorithms, caching, online algorithms, number theoretical algorithms relevant in cryptology, error-correcting codes, zero-knowledge protocols, secret-sharing protocols, one-way functions, pseudo-random generators. Prerequisite: COSC 600.

**COSC 686 COMPUTER GRAPHICS (3)** A presentation of the basic concepts in the field of computer and/or displayed graphics. The students will get an understanding of the basic mathematical and physical principles behind computer graphics and will learn a concrete programming package for computer graphics. Topics include animation, user interface, affine geometry and 3-D transformations, lighting and shading, texture mapping, rendering algorithms, ray tracing and modeling. Prerequisite: COSC 305.

**COSC 695 INDEPENDENT STUDY IN COMPUTER SCIENCE (3)** Independent study in selected areas of computer science. Prerequisite: 9 credits at the graduate or upper-division level.

**COSC 714 FUZZY LOGIC IN CONTROL APPLICATIONS (3)** Control theory and dynamical systems are first studied, followed by fuzzy sets, fuzzy memberships functions, fuzzy rules, fuzzy logic and use of neural nets to generate fuzzy rules. Two control applications are studied in department. Prerequisite: COSC 600 or equivalent.

**COSC 715 ROBOTICS (3)** Physical mechanisms of robotics, issues of modeling, planning control and programming. Principles

underlying the design and analysis of robotic systems. Prerequisite: COSC 600 or equivalent.

**COSC 716 OBJECT-ORIENTED METHODOLOGY (3)** Object-oriented approach to modeling, problem solving, requirement analysis, system design, system implementation, database design, system engineering and software engineering. Prerequisite: COSC 600 or equivalent.

**COSC 720 COMPUTATIONAL COMPLEXITY (3)** Computational complexity, time and storage cost of polynomial. Non-polynomial (NP) and NP-complete problems, randomize computation, cryptography and approximability. Prerequisite: COSC 483/583.

**COSC 725 PROCESS CONTROL AND REAL-TIME SYSTEMS (3)** Analog to digital and digital to analog conversions, signal conditioning and processing, direct digital control of processes, adaptive control of nonlinear systems and real-time programming considerations: response time, survival time, recovery time, and throughput, executive-system calls, memory-related system calls, task-synchronization system calls, multiprocessing, interrupts, task scheduling and task concurrency. Prerequisite: Graduate standing or a course in computer architecture.

**COSC 730 NETWORK MANAGEMENT SYSTEMS (3)** Principles and practice of network management including architectures, protocols and tools.

**COSC 732 WIRELESS NETWORKS AND MOBILE COMMUNICATIONS (3)** The principles and practice of wireless networks and mobile communications. Wireless transmission and media access technologies, study of a typical cellular system, satellite networks, wireless LANs, wireless ATM, mobile IP, mobility and TCP, and the wireless application protocol (WAP). Prerequisite: COSC 650.

**COSC 734 NETWORK SECURITY (3)** Principles and practice of network security. Topics include authentication services, e-mail

security, IP security, Web security, security systems and threats, wireless security, and security applications. Prerequisites: COSC 645 and COSC 650.

**COSC 740 PARALLEL COMPUTING (3)** Parallel computing and its applications including parallel computer models, parallel matrix algorithms, optimization algorithms, complexity of parallel algorithms, parallel programming environment, application of parallel algorithms in sorting, searching, matrix operations, system of linear equations and optimization. Prerequisites: COSC 600 or equivalent and a course in linear algebra.

**COSC 741 E-COMMERCE CASE STUDIES (3)** Key elements of E-commerce such as catalog, marketing, enterprise resource planning (ERP), Web-based database, network security, Internet supply chain, XML, two or three e-business models will be analyzed and discussed in class. The analysis includes system structure and technology review, marketing strategy review, and is followed by presentations and discussions. Based on the e-commerce concepts studies, students will examine the advantages and the disadvantages of various e-commerce systems. Class can choose an e-commerce model (a B2B model) as a class project. The class project will be divided into several small group projects (buyers and sellers, B2B models) so that each group of students can take each piece. Each group will design and implement the part of e-business model of their choice and integrate with other group's project at the end of the semester. Prerequisite: COSC 643.

**COSC 745 ADVANCED TOPICS IN COMPUTER SECURITY (3)** In-depth study of advanced topics in computer security. Topics will vary according to current trends and research directions in the field. Possible topics include: secure file and mail systems, operating system vulnerabilities, firewall and intrusion detection system design, denial of service attack issues, malicious code, virus detection and removal, router security, password attacks, Internet security mechanisms, spoofing, session hijacking, sniffers, scanners, log-

ging and auditing techniques, and security in mobile environments. A project that requires security tools and software, and a paper based on a research topic in computer security is required. Prerequisite: COSC 734.

**COSC 750 NEURAL NETWORKS (3)** Discussion of neural networks, architectures, algorithms and applications, including Hebbian, Hoffield and competitive learning. ART and Back propagation neural nets. Prerequisite: COSC 600 or equivalent.

**COSC 757 DATA MINING (3)** Designed to provide students with a broad background in data mining techniques and related topics. Real-world applications including Web mining will be emphasized. Current data mining tools will be used in student projects. Prerequisite: COSC 578 or equivalent.

**COSC 880 GRADUATE PROJECT/INTERNSHIP IN COMPUTER SCIENCE (3)** Enables students to conduct a study in an advanced computer-related topic or undertake the analysis, design and implementation of a real-world application. The application may be related to an industrial project sponsored by a company or it may be of mutual interest to the student and a supervising faculty member. Prerequisite: Completion of at least 18 graduate credits toward M.S. in Computer Science.

**COSC 885 PROJECT CONTINUATION (1)** Continuation of graduate project. Prerequisite: Previous registration for project work.

**COSC 897 GRADUATE THESIS (6)** An original investigation using an acceptable research method and design. Prerequisite: Completion of at least 21 graduate credits toward an M.S. degree in Computer Science.

**COSC 898 THESIS (3)** The previous course, COSC 897, taken over two consecutive semesters.

**COSC 899 THESIS CONTINUUM (1)**

## **DANCE (DANC)**

**DANC 551 DANCE EDUCATION AND PUBLIC POLICIES (3)** Examination of strategies for dance arts, advocacy and dance education policies in public schools. Prerequisite: DANC 251, dance majors only; by special permit.

## **DEAF STUDIES (DFST)**

**DFST 509 INTRODUCTION TO DEAF-BLINDNESS (2)** An orientation to the lives of people with both hearing and vision loss. Includes methods for communicating, techniques for guiding and information on assistive technology. Prerequisites: SPPA 205, 206 and 345/545.

## **EARLY CHILDHOOD EDUCATION (ECED)**

**ECED 594 TRAVEL/STUDY IN EARLY CHILDHOOD EDUCATION (1-6)** Study abroad of educational facilities, programs or practices, or selected projects on educational topics. By specific arrangement with the program director or chair and sponsoring instructors.

**ECED 603 TEACHER-LEARNER RELATIONSHIPS IN THE EARLY CHILDHOOD CLASSROOM (3)** Theory, philosophy and research on teacher-learner relationships with emphasis on developing corresponding learning classroom environments and interaction between teacher and learner in the early childhood classroom.

**ECED 604 MATH/SCIENCE IN THE EARLY CHILDHOOD EDUCATION PROGRAM (3)** Theory, pedagogy and related research on developmentally appropriate practices in math and science for young children, with emphasis on a constructivist approach to learning.

**ECED 605 THE ARTS AND YOUNG CHILDREN (3)** This course explores the fundamental role of the arts in young chil-

dren's lives and curricula, expands on teacher understanding of the arts for all individuals, provides references for low- or no-cost materials, as well as concrete, practical strategies for fine arts learning design and implementation. The course identifies how the arts build interest, motivation and learning in all areas of the curriculum.

**ECED 606 RESEARCH AND PRACTICE ON MULTIMEDIA TECHNOLOGY AND LEARNING** (3) Research and practice on multimedia technology and early childhood education. Experience and evaluate resources for young children. Experiment and integrate technology in classrooms with young children, grades Pre-K to 3.

**ECED 607 LEARNER DIVERSITY AND INCLUSION IN EARLY CHILDHOOD EDUCATION** (3) Theory, pedagogy and related research on multiple aspects of learner diversity, with emphasis on developing appropriate culturally responsive and inclusive environments for young children.

**ECED 608 INTEGRATED CURRICULUM AND AUTHENTIC LEARNING IN EARLY CHILDHOOD EDUCATION** (3) An integrated approach to learning in preschool and primary programs, with emphasis on social studies, the arts and technology through the Project Approach and inspirations from Reggio Emilia. Based on an understanding of young children's growth and development, and on appropriate curriculum practices with strategies for meaningful learning within various curriculum systems and settings. Addresses the skills, knowledge and attitudes that children need in a diverse, democratic society. Prerequisite: Graduate standing or permission of instructor.

**ECED 609 GROWTH AND DEVELOPMENT OF YOUNG CHILDREN** (3) Current theory and research on the growth and development of young children, including both typical and atypical development; methods of studying behavior; implications for early childhood programs. To be com-

pleted during the fall or spring semesters within the first 6 credit hours of the program.

**ECED 610 LEARNING ENVIRONMENTS: CURRICULUM AND TECHNOLOGY** (3) Research and practice on school transformations and new educational directions as a result of evolving technologies. Examine how emerging technologies can support curriculum and create new learning environments that are developmentally appropriate for young children.

**ECED 611 TEACHER AS RESEARCHER: RESEARCH METHODS IN EDUCATION** (3) Development of skills, insights and understanding basic to planning and conducting research, with emphasis on interpretation and application of research results. Focus on research methods and literature applicable to early childhood education. To be completed during the fall or spring semesters within the first 6 credit hours of the program.

**ECED 612 CONFLICT RESOLUTION AND MANAGEMENT IN PROGRAMS FOR YOUNG CHILDREN** (3) Examines the nature of young children's peer conflicts, the role of conflict in children's development and ways for practitioners and families to promote children's prosocial interaction, conflict resolution and early violence prevention. Also addresses adult conflict issues in early childhood settings.

**ECED 613 PROGRAMS FOR INFANTS AND YOUNG CHILDREN** (3) Research, theory and best practice relating to the development and care of young children from 0 to 3. Examines the design, implementation and evaluation of programs for infants and toddlers. Emphasis on the needs of young children and their families in diverse and inclusive settings.

**ECED 615 ADMINISTRATION AND SUPERVISION OF EARLY CHILDHOOD PROGRAMS** (3) Theory and practice of operating programs for young children, staff se-



lection and mentoring; curriculum development; working with families; licensing and accreditation; budgeting; program and staff evaluation.

**ECED 618 THINKING THROUGH THE PROCESSES AND ACQUISITION OF LITERACY (3)** Literacy acquisition, birth through age 8, through study of learning theories based on brain research, cognition, language acquisition. Strategies for integrating reading and writing processes across the curriculum. Prerequisites: Bachelor's degree in ECE or related field, teaching experience or permission of instructor.

**ECED 619 ASSESSMENT, OBSERVATION AND EVALUATION IN EARLY CHILDHOOD EDUCATION (3)** Forms, functions and roles of assessment for planning and implementing effective programs for young children from diverse cultures and home languages and with varied learning needs. Qualitative and quantitative approaches to assessment and evaluation and methods of observing children. Appropriate strategies for conducting, reporting and decision-making related to various procedures and instruments.

**ECED 621 ASSESSMENT OF READING AND WRITING IN EARLY CHILDHOOD EDUCATION (3)** Assessment to Guide Instruction: Assessment of primary-grade children's reading and writing. Purposes and types of assessment tools available for use in the classroom, types of information provided by assessment tools and appropriate use of the information including communicating results and formulating specific instructional recommendations to enhance each child's growth in reading and writing.

**ECED 623 THE ART OF READING AND WRITING INSTRUCTION IN THE PRIMARY GRADES AND KINDERGARTEN (3)** Reading and writing instruction with young children: development of comprehensive, effective programs, management of pro-

grams, evaluation of learning, use of strategies to develop comprehension, word skill and composition.

**ECED 647 ADVANCED PROCESSES OF TEACHING AND LEARNING (3)** Systems of analyzing teaching behavior; models of teaching for achieving cognitive, social and personal learning objectives; and analysis of classroom application of teaching models.

**ECED 665 CURRICULUM THEORY AND DEVELOPMENT (3)** History, theories, research and contemporary influences of curriculum development in early childhood education; objectives, content and evaluation; teacher as curriculum developers and implementers.

**ECED 670-679 SPECIAL TOPICS IN EARLY CHILDHOOD EDUCATION (1-3)** In-depth study of a selected topic in Early Childhood Education. The specific requirements and prerequisites will vary with each topic and will be designated by the department each time there is a topic scheduled. Each topic may be taken as a separate course.

**ECED 680 CELEBRATING THE ARTS WITH YOUNG CHILDREN: INTEGRATING THE ARTS IN CURRICULUM FOR YOUNG CHILDREN (6)** Understanding and integration of the arts in teaching and learning will all young children. Experiences in music, dance, drama and visual arts, supported by computer technology, with focus on inclusion of children with special needs. Emphasis on developing creative and aesthetic expression. Exploring the potential of the arts in literacy learning and the value of the arts in diverse and inclusive settings. Prerequisite: Graduate standing or consent of the graduate program director.

**ECED 694 INTERNSHIP IN EARLY CHILDHOOD EDUCATION PROGRAMS (3-6)** Experience relating theory and practice in early childhood education programs. Prerequisites: Early Childhood Education grad-

uate student standing and consent of the Early Childhood Education graduate program director.

**ECED 695 INDEPENDENT STUDY IN EARLY CHILDHOOD EDUCATION (3)** Independent study in selected areas of early childhood education. Prerequisites: Early Childhood Education graduate student standing and consent of the Early Childhood Education graduate program director.

**ECED 696 DIRECTED READINGS IN EARLY CHILDHOOD EDUCATION (3)** Independent readings in journals and professional books in selected areas of early childhood education. Prerequisites: Early Childhood Education graduate student standing and consent of the Early Childhood Education graduate program director.

**ECED 750 PROGRAM DEVELOPMENT AND EVALUATION IN EARLY CHILDHOOD EDUCATION (3)** The design, development and evaluation of programs in education and human services, including early childhood education. Theory, paradigms and models; policy in the program development process; grant writing; Brofenbrenner's notions of the ecology of human development in the design of programs; budgeting; program evaluation and use of technology in program development.

**ECED 773 SEMINAR IN EARLY CHILDHOOD EDUCATION (3)** The final course for students enrolled in the graduate program in Early Childhood Education. Focus of seminar discussions is on issues and topics of importance in early childhood education. Exploration of theoretical, philosophical, historical and/or sociological foundations of topics (to be taken in the final semester of the program).

**ECED 897 MASTER'S THESIS IN EARLY CHILDHOOD EDUCATION (6)**

**ECED 898 THESIS (3)** The previous course, ECED 897, taken over two consecutive semesters.

**ECED 899 THESIS CONTINUUM (1)**

## ECONOMICS (ECON)

**ECON 540 PERSONNEL ECONOMICS (3)** Use of economics to solve practical personnel problems with specific issues in training, turnover, hiring and incentives. Fringe benefits, evaluation and legal constraints. Prerequisite: ECON 201.

**ECON 541 LABOR ECONOMICS AND LABOR RELATIONS (3)** The determination of wages. Labor unions: history, structure, activities and effects. Government labor policy. Prerequisites: ECON 201 and ECON 202.

**ECON 574 ECONOMIC ISSUES OF GENDER (3)** Explores the changing role of men and women in the United States and other economies with specific emphasis on issues such as differences in occupations and wages, theories of discrimination, the economics of the household, child care, divorce, poverty and the effect of government programs on families. Prerequisite: ECON 201.

**ECON 585 SEMINAR ON ECONOMIC ISSUES (3)** Research and writing of papers on an economic issue selected by the instructor. Prerequisites: ECON 309, ECON 313 and ECON 310.

**ECON 593 WORKSHOP ON ECONOMIC EDUCATION (3)** Designed to help teachers and school administrators gain a better understanding of the economic working of the society in which we live. Prerequisite: Consent of the instructor.

**ECON 690 INDEPENDENT STUDY (1-3)** Individual and supervised study in selected areas of economics. Prerequisite: Permission of instructor.

**ECON 693 ECONOMIC EDUCATION RESEARCH AND METHODS (3)** Methodology and research in contemporary eco-

economic education in the elementary and secondary schools. A contemporary issues approach to economic instruction is employed. Prerequisites: ECON 301, ECON 309, ECON 323 and ECON 335.

**ECON 695 SEMINAR IN ECONOMICS** (3) Research and writing of papers on an economics issue selected by the instructor. Prerequisites: ECON 309, ECON 323 and ECON 335.

**ECON 697 INTERNSHIP IN ECONOMICS** (3) Supervised work experience designed to provide an understanding of the economic system and the practical applications of economic principles. Prerequisite: Consent of internship coordinator.

## GENERAL EDUCATION (EDUC)

**EDUC 506 RECENT TRENDS IN TEACHING** (3) Recent teaching strategies, organizational patterns and curricular innovations for levels K-12 are examined. Students may pursue individualized projects. Prerequisite: Student teaching or senior standing with consent of instructor.

**EDUC 507 CONTEMPORARY ISSUES IN EDUCATION** (3) Seminar approach to current issues in education. Prerequisite: Student teaching or senior standing with consent of instructor (no prerequisite when offered during the day).

**EDUC 517 CHILDREN'S LITERATURE AND OTHER MATERIALS FOR READING AND LANGUAGE ARTS IN ELEMENTARY SCHOOL** (3) Study of literature, texts and technology of reading and language arts instruction. Attention to authors, illustrators, awards and criteria for selection and importance in curricula. Prerequisite: Two English courses.

**EDUC 553 SUPERVISORY PRACTICES IN TEACHER EDUCATION** (3) Experiences and study in developing particular skills and competencies for supervising quality labora-

tory/field experiences. Content is designed for supervising teachers, team leaders and resource personnel. Prerequisite: Teaching experience. Graduates count this as a workshop elective.

**EDUC 560 TEACHING IN A MULTICULTURAL/MULTIETHNIC SOCIETY** (3) The course will provide teacher-education students with the background knowledge, understanding and techniques to deal effectively with children from diverse cultural and ethnic backgrounds. Prerequisite: 3 credits in education or PSYC 201.

**EDUC 570-579 SPECIAL TOPICS IN EDUCATION: (Topic to be named)** (1-3) In-depth study of a selected topic in education. The specific requirements and prerequisite will vary with each topic and will be designated by the department each time there is a topic scheduled. Graduate credit only with approval of the graduate program director. Each topic may be taken as a separate course.

**EDUC 594 TRAVEL AND STUDY EDUCATION: (Project to be named)** (1-6) Study abroad of educational facilities, programs or practices or selected projects in educational topics. By specific arrangement with program chairperson and sponsoring instructors. Consent of graduate program director required for graduate degree credit.

**EDUC 595 INDEPENDENT STUDY IN EDUCATION: (Project to be named)** (1-4) An opportunity for specially qualified students to undertake research problems or study projects relevant to their interest and training under the direction of a staff member. Prerequisite: Approval of appropriate program chairperson. Graduate credit by consent of graduate program director only.

**EDUC 596 DIRECTED READINGS IN EDUCATION** (1-4) Independent readings in selected areas of education, in order to provide a comprehensive coverage for the individual or to meet special needs. By invitation of the department to major students. Prerequisite:

Approval of appropriate program chairperson. Graduate credit by consent of graduate program director only.

**EDUC 601 CONCEPTS AND ISSUES IN EDUCATION (3)** Social, economic, historical, political and technological trends that shape educational policy and programs. Prerequisite: Graduate standing.

**EDUC 603 SCHOOL LAW (3)** A study of the legal framework within which the public and nonpublic schools function. The course will give attention to the legal relationships among federal, state and local governments; the legal status of school districts, boards of education and school administrators; the legal status of nonpublic schools and the law regarding all facets of the school program, staff and pupils. Prerequisite: Student teaching or teaching experience.

**EDUC 605 RESEARCH AND INFORMATION TECHNOLOGY (3)** Use of database networks for information retrieval; computer hardware and software application programs appropriate for research and curriculum planning; introduction to distance learning; interactive technologies and resource-based learning. Prerequisite: Teaching experience or completion of student teaching.

**EDUC 611 SUPERVISION OF STUDENT TEACHING (3)** An analysis of the roles of the cooperating teacher, college supervisor and student teacher; current practices, issues, problems, trends and evaluation in laboratory experiences and current research. Prerequisite: Teaching experience.

**EDUC 614 ASSESSMENT AND EVALUATION IN EDUCATION (3)** Current trends and techniques in assessment and evaluation. Classroom assessment: development and interpretation of classroom tests, performance criteria and student portfolios. Classroom evaluation: formative, summative and portfolio evaluation.

**EDUC 615 APPLIED EDUCATIONAL STATISTICS (4)** Educational statistics used

in fundamental quantitative research designs. Includes descriptive and inferential through ANOVA. Required laboratory includes current statistical applications software. Prerequisite: Permission of the instructor.

**EDUC 645 THEORIES IN EDUCATIONAL ADMINISTRATION (3)** Theoretical bases for educational administration. Prerequisites: Teaching experience and teacher certification.

**EDUC 646 HUMAN RELATIONS AND THE PROFESSIONAL (3)** Professional behavior in organizational work place, emphasizing leadership and communication. Prerequisite: Teaching experience or certification.

**EDUC 661 RESPONDING TO AND EVALUATING WRITING (3)** Direct assessment using holistic, analytic, primary trait and unit analysis; indirect assessment of grammar, punctuation and usage, in-process response techniques. Prerequisite: SCED 603, SCED 605 or SCED 558 or consent of graduate program director.

**EDUC 667 WRITING AS THINKING (3)** Research on the writing-thinking connection; self-analysis of thought processes used while writing; analysis of classroom methods for teaching writing and thinking. Prerequisite: SCED 603, SCED 605 or SCED 558 or consent of instructor.

**EDUC 670-674 SPECIAL TOPICS IN EDUCATION (1-6)** In-depth study of a selected topic in education. The specific requirements and prerequisites will vary with each topic and will be designated by the department each time a topic is scheduled. Approval by the appropriate graduate program director is required. Each topic may be taken as a separate course. Prerequisite: Varies with each topic.

**EDUC 695 INDIVIDUALIZED STUDY (3-6)** Individually planned programs which will permit the student to engage in research and/or field experiences relative to the stu-

dent's professional growth. Admission by application to the graduate program director only.

**EDUC 717 CHILDREN'S LITERATURE AND OTHER MATERIALS FOR TEACHING READING (3)** An in-depth examination of a variety of texts for teaching reading, with particular emphasis on children's literature and reading software; strategies for selecting and evaluating texts. Review of current research. Prerequisite: Admission to M.A.T. program or permission of the graduate director.

**EDUC 730 PRINCIPLES OF LEARNING, DEVELOPMENT AND DIVERSITY (3)** Current theories and research on the nature of learning, development and diversity and its relationship to classroom practice. Prerequisite: Admission to the M.A.T. program.

**EDUC 731 CURRICULUM AND ASSESSMENT (3)** Principles and practices of curriculum development, actual school practice and the teacher's role as a curriculum developer. Prerequisite: Admission to the M.A.T. program.

**EDUC 732 RESEARCH METHODOLOGY IN THE INFORMATION AGE (2)** Methods of conducting research using traditional research tools and modern technology. Prerequisite: Admission to the M.A.T. program.

**EDUC 734 THE TEACHER AS RESEARCHER (3)** Theory and methodology for conducting classroom research with an emphasis on descriptive research approaches. Prerequisite: Admission to M.A.T. program.

**EDUC 735 PROSEMINAR: PROBLEMS AND ISSUES (3)** Problems and issues that impact teachers and the education process. Prerequisite: Admission to the M.A.T. program. Completed concurrent with student teaching.

**EDUC 736 CLASSROOM MANAGEMENT (2)** Disciplinary theories, structuring

classes, conflict resolution and coping with deviant behavior. Prerequisite: Admission to the M.A.T. program.

**EDUC 737 TEACHING STUDENTS WITH DISABILITIES IN THE MAINSTREAM (2)** Legal bases and methods and materials appropriate for teaching mainstreamed handicapped students. Prerequisite: Admission to the M.A.T. program.

**EDUC 740 DATA-BASED DECISION MAKING FOR CURRICULUM AND INSTRUCTION (3)** Considers how to collect, analyze and use a variety of classroom, school-based, state, and national trend data to measure program effectiveness and guide curricular revisions. Prerequisites: ECED 665, ELED 665, SCED 741 or equivalent.

**EDUC 741 SEMINAR IN LIABILITY FOR PROFESSIONALS IN EDUCATION (3)** In-depth discussions of a great variety of emerging legal cases appropriate to liability among professionals in education. Emphasis will be given to such topics as: negligence, duty, abrogation of duty, foreseeability, loco parentis, sovereign immunity, suspension and expulsion, professional negotiations, evaluations and student rights and responsibilities. Prerequisite: One course in school law.

**EDUC 742 TRANSFORMATIONAL LEADERSHIP AND PROFESSIONAL DEVELOPMENT (3)** Addresses the basic considerations affecting professional development at the school and district level, examines patterns of organization and identifies successful school practices. Students formulate and articulate their own beliefs in relation to current trends and make correlations to standards addressed through the Educational Leadership Constituent Council (ELCC) and the National Staff Development Council (NSDC). Prerequisite: ELED 716, SCED 643 or permission of instructor.

**EDUC 743 LEARNING COMMUNITIES AND ORGANIZATIONAL CHANGE (3)** Theoretical underpinnings of individual and

organizational learning in an era of rapid change, with emphasis on leaders' roles in shaping schools and districts into learning communities, based on shared values, norms and ongoing reflective dialogue. There is no overlap with any existing course. Prerequisite: ECED 665, ELED 655, SCED 741 or consent of advisor.

**EDUC 744 INTERPERSONAL RELATIONS AND GROUP DYNAMICS: THEORY, RESEARCH AND APPLICATION (3)** Addresses theoretical and applied foundation of concepts, principles, practices, and competencies related to understanding group dynamics and interpersonal relations; integration of theory and practice to apply various conceptual models of group behavior to educational and organizational settings; self-awareness and developmental to improve interpersonal relations. Prerequisite: Advanced graduate standing in Educational Leadership Program or consent of instructor.

**EDUC 745 SCHOOL BUDGETING AND FISCAL PLANNING (3)** Development of a budget on departmental, local school, system-wide and state levels; implementation and evaluation of budgets; long- and short-term fiscal planning. Prerequisite: One course in administration.

**EDUC 761 RESEARCH IN EDUCATION (3)** Theory and methodology of educational research. Prerequisite: EDUC 605.

**EDUC 762 INTRODUCTION TO EDUCATIONAL EVALUATION (3)** Theory and methodology of education evaluation for systematic appraisal of process, program, staff or institution. Prerequisite: A course in statistics or tests and measurements.

**EDUC 770-774 SPECIAL TOPICS IN EDUCATION (1-3)** In-depth study of a selected topic in education. The specific requirements and prerequisites will vary with each topic and will be designated by the department each time a topic is scheduled. Approval by the appropriate graduate program director is

required. Each topic may be taken as a separate course.

**EDUC 776 INTERMEDIATE STATISTICS IN EDUCATIONAL RESEARCH (3)** This is an intermediate course in educational research and statistics focusing on the selection and use of statistical analysis appropriate for quantitative research designs. An overview of experimental design and controls to threats to internal and external threats to validity forms the vantage point from which statistical analysis are examined. Prerequisite: EDUC 615 Applied Statistics in Education or equivalent.

**EDUC 787 INTERNSHIP IN METHODS OF TEACHING READING (3)** An internship with a mentor teacher providing an opportunity for an M.A.T. candidate to focus on understanding and demonstrating a balanced approach to teaching reading. The intern will develop a reading portfolio to complete the knowledge and performance expectations of the experience. Completed concurrent with student teaching.

**EDUC 790 ADVANCED MEASUREMENTS AND STATISTICS IN EDUCATION (3)** An advanced statistics course for doctoral students focusing on using multivariate statistics in educational research designs. Course covers statistical analyses ranging from multiple regressions, canonical correlation through multivariate analysis of variance and covariance, as well as discriminate function analysis. Advanced skills of experimental and nonexperimental designs, and uses of contemporary statistics software will be developed. Prerequisites: EDUC 715 (intermediate-level statistics), ISTC 700 (assessment in IT), IATC 741 (doctor-level research foundation) or equivalent.

**EDUC 797 INTERNSHIP I/SEMINAR (1-6)** Best practices for creating and maintaining a positive and productive learning environment will be explored. Participants analyze a variety of learner characteristics that influence student development and academic

achievement, including gender, ethnicity, physiology, values, family, and geographic regions, as appropriate for age/grade level and professional specialization. Taken concurrently with EDUC 734 in the semester prior to Internship II. Participants complete extended field experience (as determined by appropriate program director). Prerequisite: Consent of graduate program director, who may require other prerequisites.

**EDUC 798 INTERNSHIP II WITH SEMINAR (6)** Supervised teaching experience at the appropriate school level for students in M.A.T. program. Seminar will provide participants with theory-practice connections. Prerequisite: Approval of early childhood education, elementary education or secondary education departments and the graduate program director.

**EDUC 897 MASTER OF EDUCATION THESIS (6)** Investigation of selected topics in education.

**EDUC 898 THESIS (3)** The previous course, EDUC 897, taken over two consecutive semesters.

**EDUC 899 THESIS CONTINUUM (1)**

## **ELEMENTARY EDUCATION (ELED)**

**ELED 557 ENGLISH FOR THE NON-ENGLISH SPEAKING CHILD (3)** Methods of teaching English to elementary school children whose native tongue is another language. Prerequisite: Elementary language-arts methods course or elementary teaching experiences or consent of instructor.

**ELED 594 TRAVEL AND STUDY: ELEMENTARY EDUCATION (1-6)** Study abroad for educational facilities, programs or practices or selected projects in elementary education topics. By special arrangement with program chairperson and sponsoring instructors. Consent of graduate program director required for graduate degree credit; may be repeated for a maximum of 6 credits.

**ELED 601 CRITICAL AND CREATIVE THINKING (3)** Past and current research and practices in the development of creative and critical thinking potential in children and adults. Examination of cognitive, psychological, and cultural influences and thinking processes; analysis and evaluation of models for instruction to promote higher level thinking; application and evaluation of various approaches to enhance critical and creative thinking in classroom setting and in personal endeavors.

**ELED 611 PRINCIPLES AND PROCESSES OF LANGUAGE AND LITERACY (3)** Study of the theoretical foundations of reading and language arts in an elementary school setting. Exploration of theories and research perspectives on language and literacy development, the nature of reading and writing processes and factors influencing the acquisition of literacy.

**ELED 613 READING AND OTHER LANGUAGE ARTS IN THE ELEMENTARY SCHOOL (3)** Application of principles and processes of language and literacy development to reading and language arts instruction. Examination of instructional models, approaches and strategies for supporting literacy development in diverse classroom settings. Prerequisite: One course in reading instruction.

**ELED 621 LITERACY ASSESSMENT IN THE ELEMENTARY CLASSROOM (3)** Examination of theories and principle of classroom literacy assessment. Practice using a range of formal and informal techniques for assessing reading and writing, and using assessment data to plan instruction. Prerequisites: ELED 611.

**ELED 631 EDUCATING THE GIFTED (3)** Identification of gifted student in elementary and middle schools; curricular adaptations and school programs; stimulating creativity and problem-solving strategies. Prerequisite: Student teaching or teaching experience or consent of instructor.

**ELED 640 DISCIPLINE AND MANAGEMENT IN THE ELEMENTARY SCHOOL**

(3) Classroom discipline in the elementary school and development of ways and means of implementing appropriate classroom management techniques. Prerequisite: Student teaching, teaching experience or consent of instructor.

**ELED 647 ADVANCED PROCESSES OF TEACHING AND LEARNING**

(3) Systems for analyzing teaching behavior, models of teaching for achieving cognitive, social and personal learning objectives; and analysis of classroom application of teaching models. Prerequisite: Teaching experience (students enrolling for this class should be teaching).

**ELED 648 DIFFERENTIATING INSTRUCTION FOR ALL LEARNERS**

(3) Current research and practices for development and modification of curriculum and instruction to address learning strengths of all students in the heterogeneous classroom, including gifted and talented students. Evaluation and application of systems for identification of student strengths and potential; approaches for modification of basic curriculum; alternative models for curriculum and instruction design, classroom management, and resources for individualizing learning in the regular classroom. Prerequisite: Teaching experience.

**ELED 665 CURRICULUM THEORY AND DEVELOPMENT**

(3) History of curriculum development in the elementary school: basic considerations affecting curriculum development, patterns of organization, objectives, practices and evaluation and problems in curriculum development. Prerequisite: Certification and teaching experience or consent of instructor.

**ELED 670-674 SPECIAL TOPICS IN ELEMENTARY EDUCATION**

(1-3) Study of a topic in elementary education. Requirements and prerequisites vary with each topic.

**ELED 685 SEMINAR IN ELEMENTARY SCHOOL SOCIAL STUDIES**

(3) Trends,

content, issues and materials involved in the teaching of social studies. Students explore one aspect of the subject and present findings.

**ELED 695 INDEPENDENT STUDY IN EDUCATION: ELEMENTARY**

(1-4) Research problems or study projects relevant to student interest and training. Prerequisite: Consent of the graduate program director prior to registration.

**ELED 716 ADMINISTRATION OF THE SCHOOLS**

(3) Principles of elementary school administration, the administrator's role and responsibilities, human relations and personnel management, public relations, management of the school unit and curriculum. Prerequisites: Three years of teaching experience, teacher certification and 9 graduate-level credits.

**ELED 770-774 SPECIAL TOPICS IN ELEMENTARY EDUCATION**

(1-3) Study of a selected topic in education. Requirements and prerequisites vary according to topic. Prerequisite: Consent of graduate program director.

**ELED 775 INTEGRATED PROFESSIONAL PRACTICE SEMINAR**

(3) Trends, issues, problems in education. Integrative investigations through quantitative/qualitative research, curriculum and instruction development, or policy and program development for selected aspects of elementary education. Prerequisite: 27 credits of graduate work.

**ELED 781 SEMINAR IN SUPERVISION**

(3) Role of the supervisor, supervisory practices and techniques. Prerequisite: 9 graduate credits.

**ELED 797 INTERNSHIP IN EDUCATIONAL LEADERSHIP**

(1-6) Experience relating theory and practice in schools and clinics. Prerequisites: 12 graduate credits.

**ELED 897 MASTER'S THESIS IN ELEMENTARY EDUCATION**

(6)



**ELED 898 THESIS (3)** The previous course, ELED 897, taken over two consecutive semesters.

**ELED 899 THESIS CONTINUUM (1)**

## **ELECTRONIC MEDIA AND FILM (EMF)**

**EMF 530 THE MEDIA PRODUCER (3)** Management and administration of film and video projects. Prerequisite: MCOM 267, or MCOM 271, or MCOM 273.

**EMF 573 FILM III: ADVANCED 16MM TECHNIQUES (3)** Seminar in professional filmmaking techniques leading to the completion of an original narrative film. Prerequisite: EMF 367.

**EMF 575 FILM ANALYSIS (3)** Style of a director, studio or filmmaking method in terms of thematic and formal properties and their influences upon the art of film. Prerequisite: EMF 221.

**EMF 587 SEMINAR IN DIGITAL POST-PRODUCTION (3)** Professional nonlinear editing skills and techniques including audio and multimedia applications. Prerequisite: EMF 275.

## **ENGLISH (ENGL)**

**ENGL 501 HISTORICAL LINGUISTICS (3)** Introduction to language typology and Indo-European philology; historical development of linguistics up to the 20th century. Prerequisite: Two English courses (not open to students who have completed ENGL 351).

**ENGL 503 HISTORY OF AMERICAN ENGLISH (3)** Origins and history of American dialects; development of elements of vocabulary, sounds and grammar which distinguish American English; standards of American English. Prerequisite: Two English courses (not open to students who have completed ENGL 353).

**ENGL 511 MEDIEVAL BRITISH LITERATURE (3)** Emphasis on the mystical writers, Piers Plowman, the Gawain-poet and Arthurian literature. Prerequisites: Two English courses (not open to students who have completed ENGL 321).

**ENGL 512 BRITISH MEDIEVAL AND RENAISSANCE DRAMA (3)** Development of the drama, excluding Shakespeare, with emphasis on plays by Marlowe, Kyd, Jonson, Ford and Webster. Prerequisite: Two English courses (not open to students who have completed ENGL 322).

**ENGL 514 BRITISH LITERATURE OF THE LATER RENAISSANCE (3)** Major intellectual and literary currents of 1600-1660 in the poetry of Donne, Herbert, Marvell, Jonson and Milton, and the prose of Bacon, Brownie, Burton and Hobbes. Prerequisite: Two English courses (not open to students who have completed ENGL 324).

**ENGL 515 18TH-CENTURY BRITISH LITERATURE (3)** Social and intellectual backgrounds, literary trends and significant authors, such as Swift, Pope, Fielding, Johnson and Boswell, with emphasis on satire. Prerequisite: Two English courses (not open to students who have completed ENGL 325).

**ENGL 516 LITERATURE OF THE BRITISH ROMANTIC PERIOD (3)** Major writers such as Blake, Wordsworth, Coleridge, Byron, Shelley and Keats, from 1790 to 1830 with emphasis on the philosophic and social backgrounds. Prerequisite: Two English courses (not open to students who have completed ENGL 326).

**ENGL 517 AMERICAN DRAMA (3)** American drama from the Colonial period to the present, with emphasis on 20th-century plays by O'Neill, Williams, Miller, Bullins and Wilder. Prerequisite: Two English courses (not open to students who have completed ENGL 331).

**ENGL 518 HISTORY AND LITERATURE OF THE OLD TESTAMENT (3)** The chief

books of the Old Testament and the Apocrypha studied from a literary and historical point of view. Prerequisite: Two English courses (not open to students who have completed ENGL 341).

**ENGL 519 FOLKLORE AND LITERATURE (3)** How and why literary artists draw plots, characters, themes and style from ancient folk tradition: the anonymous oral narratives, songs, jests and proverbs that circulate in all cultures. Focus on universal folkloric material in such works as the Bible, Aesop's Fables, the Arabian Nights, Peer Gynt and Harvest Home. Prerequisite: Two English courses (not open to students who have completed ENGL 342).

**ENGL 520 DEVELOPMENT OF THE BRITISH NOVEL: 17TH CENTURY (3)** Georgian fiction and its social background, especially works by Defoe, Richardson, Fielding, Smollett, Steme and Austen. Prerequisite: Two English courses (not open to students who have completed ENGL 420).

**ENGL 521 DEVELOPMENT OF THE BRITISH NOVEL: 19TH CENTURY (3)** Mainly Victorian fiction and its social background, especially works by Scott, the Brontes, Thackeray, Dickens, Eliot and Hardy. Prerequisite: Two English courses (not open to students who have completed ENGL 421).

**ENGL 522 DEVELOPMENT OF THE BRITISH NOVEL: 20TH CENTURY (3)** Modern fiction and its social background, especially works by Joyce, Lawrence, Woolf, Forster, Waugh and Greene. Prerequisite: Two English courses (not open to students who have completed ENGL 422).

**ENGL 523 MODERN BRITISH POETRY (3)** Emphasis on Hopkins, Hardy, Yeats, Auden, Spender, Sitwell, Thomas and Larkin. Prerequisite: Two English courses (not open to students who have completed ENGL 423).

**ENGL 525 CHAUCER (3)** Major poems, especially *The Canterbury Tales* and *Troilus and Cressida*. Prerequisite: Two English courses (not open to students who have completed ENGL 425).

**ENGL 527 SHAKESPEAREAN COMEDY (3)** Shakespeare's development as a poet and dramatist in the comedies and romances. Prerequisite: Two English courses (not open to students who have completed ENGL 427).

**ENGL 528 SHAKESPEAREAN TRAGEDY (3)** Shakespeare's development as a poet and dramatist in the histories and tragedies. Prerequisite: Two English courses (not open to students who have completed ENGL 428).

**ENGL 529 MILTON AND THE HUMANIST TRADITION (3)** Major poetry and prose with emphasis on Milton's place in the humanist tradition. Prerequisite: Two English courses (not open to students who have completed ENGL 429).

**ENGL 531 LITERATURE OF THE AMERICAN ROMANTIC PERIOD (3)** Social and political backgrounds, 1819-1860, important literary ideas, criticism and major authors, such as Irving, Cooper, Emerson, Thoreau, Hawthorne, Melville and Poe. Prerequisite: Two English courses (not open to students who have completed ENGL 431).

**ENGL 532 LITERATURE OF THE AMERICAN REALISTIC PERIOD (3)** Major writers, such as Dickinson, Twain, Crane and James; important secondary writers; social and political backgrounds; important literary ideas and criticism, 1860-1914. Prerequisite: Two English courses (not open to students who have completed ENGL 432).

**ENGL 533 AMERICAN SHORT STORY (3)** Authors and schools, such as Irving, Hawthorne, Poe, Hemingway, Welty, Wright, Porter, local color writers, realists and naturalists. Prerequisite: Two English courses (not open to students who have completed ENGL 433).

**ENGL 535 DEVELOPMENT OF THE AMERICAN NOVEL: 19TH CENTURY**

(3) Major novelists, such as Cooper, Melville, Hawthorne, Twain, Howells, James and Crane. Prerequisite: Two English courses (not open to students who have completed ENGL 435).

**ENGL 536 DEVELOPMENT OF THE AMERICAN NOVEL: 20TH CENTURY**

(3) Major novelists, such as Fitzgerald, Hemingway and Faulkner. Prerequisite: Two English courses (not open to students who have completed ENGL 436).

**ENGL 537 AMERICAN POETRY THROUGH FROST**

(3) Puritan beginnings through the early 20th century, with emphasis on Emerson, Poe, Whitman, Dickinson and Frost. Prerequisite: Two English courses (not open to students who have completed ENGL 437).

**ENGL 538 MODERN AMERICAN POETRY**

(3) Poetic movements from the 1920s to the 1980s, and major poets, such as Eliot, Stevens, Williams, Lowell, Plath and Rich. Prerequisite: Two English courses (not open to students who have completed ENGL 438).

**ENGL 541 MODERN FICTION TO WORLD WAR II**

(3) Works of the modern masters of fiction, with emphasis on Proust, Mann and Joyce. Prerequisite: Two English courses (not open to students who have completed ENGL 441).

**ENGL 542 MODERN FICTION SINCE WORLD WAR II**

(3) Works of the significant writers — English, American and Continental — of the past 30 years, including such figures as Grass, Robbe-Grillet, Solzhenitsyn and Burgess. Prerequisite: Two English courses (not open to students who have completed ENGL 442).

**ENGL 543 MYTH AND LITERATURE**

(3) Literary reinterpretations of themes and figures from Greek and Roman mythology. Prerequisite: Two English courses (not open to students who have completed ENGL 343).

**ENGL 547 WORLD LITERATURE WRITTEN IN ENGLISH**

(3) Literature originally published in English from Africa, India, Australia, New Zealand, Canada, and the West Indies. Mainly 20th Century fiction including fiction, poetry, and drama. Prerequisite: Two English courses.

**ENGL 550 COMPARATIVE GRAMMAR**

(3) Study of English grammar: traditional, structural and transformational. Prerequisite: Two English courses (not open to students who have completed ENGL 350).

**ENGL 551 HISTORY OF THE ENGLISH LANGUAGE**

(3) Changes and reasons for the changes in grammar, sound and vocabulary of the language from Old English to modern times. Prerequisite: Two English courses (not open to students who have completed ENGL 451).

**ENGL 552 STRUCTURE OF THE ENGLISH LANGUAGE**

(3) A linguistic approach to sounds, forms, syntax and usage. Prerequisite: Two English courses (not open to students who have completed ENGL 452).

**ENGL 561 HISTORY OF LITERARY CRITICISM**

(3) Major statements in literary theory from Aristotle to the present, including Horace, Sidney, Johnson, Coleridge, Eliot and Frye. Prerequisite: Two English courses (not open to students who have completed ENGL 461).

**ENGL 565 BRITISH AND AMERICAN PROSE**

(3) Nonfictional prose, with emphasis on form and style. Prerequisite: Two English courses (not open to students who have completed ENGL 465).

**ENGL 571 TOPICS IN WORLD LITERATURE**

(3) Authors, periods, genres or conventions. Variation in content from year to year; may be reelected once. Prerequisite: Two English courses.

**ENGL 572 TOPICS IN BRITISH LITERATURE**

(3) Authors, periods, genres or conventions. Variation in content; may be re-

elected once. Prerequisite: Two English courses.

**ENGL 573 TOPICS IN AMERICAN LITERATURE (3)** Authors, periods, genres or conventions; variation in content. Prerequisite: Two English courses.

**ENGL 575 TOPICS IN LINGUISTICS (3)** Topics and issues in contemporary linguistics theory, with particular attention to recent interdisciplinary subspecialty developments: psycholinguistics, sociolinguistics, pedagogic linguistics, etc. Topics to vary. Prerequisite: One linguistics course or consent of the instructor. May be reelected once (not open to students who have completed ENGL 475).

**ENGL 576 TOPICS IN MULTIETHNIC AMERICAN LITERATURE (3)** Possible topics include women in ethnic literature, Jewish writers and the Catholic novel. Variation in content; may be reelected once. Prerequisite: Two English courses (not open to students who have completed ENGL 476).

**ENGL 580 VOICES OF MEDIEVAL WOMEN (3)** Examines the voices assumed by and assigned to women in European literature of the tenth to the fifteenth centuries. Emphasis on medieval women authors, including Hrotsvit von Gandersheim, Hildegard von Bingen, Heloise, Marie de France, Christine de Pizan and Margery Kempe. Prerequisite: Two English courses.

**ENGL 585-586 SEMINAR IN LITERARY STUDIES (3)** Intensive study of one area of British, American or World literature, e.g., a specific author, period, school or genre. Variation in content; may be reelected. Prerequisite: Junior standing.

**ENGL 590 DIRECTED STUDIES IN ENGLISH (3)** Independent reading of a specific author, period, topic, problem or school of literature. Topic selected by student in consultation with professor. May be repeated for

a maximum of 6 credits only. Prerequisites: 18 credits in English or 12 credits in English and 6 in a related discipline; minimum 3.00 average in English and the related discipline; consent of department chairperson and instructor (not open to students who have completed ENGL 491).

**ENGL 594 TRAVEL AND STUDY (3-6)** Places and topics to be selected by student in consultation with instructor. Prerequisite: Two English courses.

**ENGL 621 STUDIES IN ENGLISH LITERATURE (3)** Study of one major area of English literature (author, period, movement, etc.); areas vary from semester to semester. Prerequisite: Graduate standing or consent of department.

**ENGL 623 STUDIES IN LITERARY CRITICISM (3)** Study of one major area of literary criticism (author, period, movement, etc.); areas vary from semester to semester. Prerequisite: Graduate standing or consent of department.

**ENGL 625 STUDIES IN AMERICAN LITERATURE (3)** Study of one major area of American literature (author, period, movement, etc.); areas vary from semester to semester. Prerequisite: Graduate standing or consent of department.

**ENGL 627 STUDIES IN WORLD LITERATURE (3)** Study of one major area of world literature (author, period, movement, etc.); areas vary from semester to semester. Prerequisite: Graduate standing or consent of department.

**ENGL 631 STUDIES IN LINGUISTICS (3)** Topics in the technology and philosophy of language: descriptive grammar, psycholinguistics, sociolinguistics, etc. Topics vary from semester to semester. Prerequisite: Graduate standing or consent of department.

## ENVIRONMENTAL SCIENCE (ENVS)

**ENVS 601 TOPICS IN ENVIRONMENTAL GEOLOGY (4)** Geological concepts related to developed and developing areas; topics include earth materials, soils and soil formation, hydrological cycle, waste management; water management; geological issues in land-use decision making. Some field work might require weekend obligations. Prerequisite: Admission into the graduate program in Environmental Science or consent of the instructor.

**ENVS 602 ENVIRONMENTAL CHEMISTRY (4)** Principles of chemistry applied to environmental pollutants; physio-chemical processes controlling pollutant transport, fate and distribution; partitioning of water, soil and air as they relate to biotic systems. Some field work might require weekend obligations. Prerequisite: Admission into the graduate program in Environmental Science or consent of the instructor.

**ENVS 603 ENVIRONMENTAL LAW AND REGULATIONS (3)** Operation of the American legal system as it functions to control and remediate environmental problems; emphasis on the law and legal processes which govern environmental disputes; function of legal institutions in these disputes; role of regulations in environmental protection. Prerequisite: Admission into the graduate program in Environmental Science or consent of the instructor.

**ENVS 604 ECOSYSTEM ECOLOGY (4)** Principles of ecosystem ecology; factors controlling ecosystem structure and function; energy balance and biogeochemical cycles. Emphasis on ecological impacts of human alterations and urbanized ecosystems. Development of student capacity for "systems thinking" via modeling in fields and laboratory-based investigative projects. Implications for environmental management from local to global scale. Some field work might require weekend obligations. Prerequisite:

Admission into the graduate program in Environmental Science or consent of the instructor.

**ENVS 630 CONCEPTS OF ENVIRONMENTAL ENGINEERING (3)** Introduction to the principles and concepts of environmental engineering for non-engineers; review and discuss methods of assessment and design; modeling methods used; critical assessment of design and different design paradigms; problem solving approaches. Prerequisite: Admission to the Environmental Science graduate program or consent of instructor.

**ENVS 635 WETLANDS IDENTIFICATION, CONSERVATION AND DELINEATION (4)** The ecological, chemical and physical principles of wetlands biology; characterization, description and mapping of wetland habitats. Wetlands regulations and their ecological basis including hydric soil field indicators, interrelationship of landscape, vegetation and soils. Use of topographic maps, aerial photography, National Wetland Inventory maps and simple survey techniques. Some field work might require weekend obligations. Prerequisite: Admission into the graduate program in Environmental Science or consent of the instructor.

**ENVS 640 ECOTOXICOLOGY (3)** Fate, activity and dose-response relationships of organisms to environmental toxicants; their absorption, distribution, metabolism and excretion; evaluation of physical, chemical and biological factors that influence toxicity. Quantitative methods and models used in acute and chronic toxicity studies. Prerequisite: Admission into the graduate program in Environmental Science or consent of the instructor.

**ENVS 645 FLUVIAL GEOMORPHOLOGY AND HYDROLOGY (4)** Hydrologic and morphologic characteristics of streams and valley floors; landscape evolution by stream erosion and deposition, rainfall runoff relationships. Field exercises include quantitative analysis of fluvial processes, channel forms,

mapping, topographic surveying, report writing. Some field work might require weekend obligations. Prerequisite: Admission into the graduate program in Environmental Science or consent of the instructor.

#### **ENVS 650 AQUEOUS GEOCHEMISTRY**

(4) Application of thermodynamics, mass balance, systems science, and kinetics to understanding mineral-water-contaminant interactions in natural and impacted aquatic systems on a variety of spatial and temporal scales. Some field work might require weekend obligations. Prerequisite: Admission into the graduate program in Environmental Science or consent of the instructor.

#### **ENVS 670 INDEPENDENT STUDY IN ENVIRONMENTAL SCIENCE (1-3)**

Studies in selected content areas tailored to student needs. This course may be repeated for a total of 3 credits. Prerequisites: Consent of instructor and matriculation in the Environmental Science graduate program.

#### **ENVS 680-689 SELECTED TOPICS IN ENVIRONMENTAL SCIENCE (1-4)**

Topics in environmental science will be chosen. Course content and field exercises will be determined as to complement course offerings in environmental science. Some field work might require weekend obligations. Prerequisite: Admission into the graduate program in Environmental Science or consent of the instructor.

#### **ENVS 798 RESEARCH PRACTICUM (3)**

An analytical position paper on an approved topic written under faculty supervision. The research practicum is reviewed and accepted by a panel of graduate faculty and is expected to demonstrate communication skills, critical thinking and critical analysis. Credits will be granted after the paper is accepted by the ENVS graduate faculty panel. Prerequisites: Admission to the graduate program in Environmental Science, completion of four core courses. Permit required.

**ENVS 897 THESIS (6)** An original investigation to be completed under the supervision of one or more faculty members. Credit is granted after the thesis is accepted. Prerequisites: Completion of two core courses in the graduate program in Environmental Science and endorsement by at least one member of the graduate faculty willing to serve as research adviser.

**ENVS 898 THESIS (3)** The previous course, ENVS 897, taken over two consecutive semesters.

**ENVS 899 THESIS CONTINUUM (1)**

### **FAMILY STUDIES (FMST)**

#### **FMST 570-579 SPECIAL TOPICS IN FAMILY STUDIES (3)**

In-depth study of a selected topic in family studies. May be repeated for a maximum of 9 credits. Prerequisite: FMST 101.

#### **FMST 601 APPLIED FAMILY RELATIONSHIPS (3)**

Course explores the fundamental components of the development and maintenance of family relationships. Student will critically analyze various perspectives and techniques of interpersonal relationships. Student will apply knowledge through case analysis. Prerequisites: Graduate standing and consent of program director.

#### **FMST 610 FAMILY-PROFESSIONAL COLLABORATION (3)**

Problem-based learning from a multidisciplinary perspective to enhance professional and family collaboration. Prerequisites: Graduate standing and consent of instructor.

#### **FMST 620 PROJECT IN FAMILY FOCUSED PROGRAM DEVELOPMENT (3)**

Exploration of complex relationships in family program development, and student involvement in a family focused service-learning project. Students will conduct initial field exploration to identify a focus area that could benefit from creative family program-

ming. Potential service areas are school communities, social service agencies, and non-profit program. Prerequisites: Graduate standing and consent of program director.

**FMST 670 TO 679 SPECIAL TOPICS IN FAMILY STUDIES (3)** Study of selected topics in family studies. Topics will vary according to instructor. May be repeated for a maximum of 9 credits. Prerequisites: Graduate standing and consent of program director.

**FMST691 INDEPENDENT STUDY IN FAMILY STUDIES (1-6)** The independent study course provides students with the opportunity to explore an in-depth topic specific to the area of concentration under the direction of graduate program faculty member. Course maybe repeated for a maximum of 6 credits. Prerequisites: Graduate standing and consent of program director.

## **FRENCH (FREN)**

**FREN 501 FRENCH PHONETICS (3)** Pronunciation and analysis of spoken French, based on phonological theory. Conducted in French. Prerequisite: FREN 301/302 or equivalent (not open to native speakers of French).

**FREN 502 APPLIED FRENCH LINGUISTICS (3)** Phonetics, morphology, syntax, points of interference. Linguistic study relating to methodology for French teachers. Conducted in French. Prerequisite: FREN 301/302 or equivalent.

**FREN 511 THE FRENCH NOVEL (3)** Study of the French novel and narrative techniques from the 17th century to the present day. Conducted in French. Prerequisite: FREN 321/322 or equivalent.

**FREN 521 FRENCH LITERATURE OF THE 17TH CENTURY I (3)** Selected works from France's major classical writers. Prerequisite: FREN 321/322 or equivalent.

**FREN 525 FRENCH LITERATURE OF THE 18TH CENTURY (3)** Principal works of the major writers with the concurrent literary and philosophical trends. Conducted in French. Prerequisite: FREN 321/322 or equivalent.

**FREN 531 FRENCH LITERATURE OF THE 19TH CENTURY (3)** Selected works of major writers and literary movements: Romanticism, Realism, Naturalism and Symbolism. Conducted in French. Prerequisites: FREN 321/322 or equivalent.

**FREN 541 FRENCH LITERATURE OF THE 20TH CENTURY (3)** The evolution from fin de siècle to the present day of the novel, the theatre and poetry as reflections of the artistic and philosophical developments leading to the modern age. Shifting emphasis from semester to semester. Conducted in French. Prerequisite: FREN 321/322 or equivalent.

**FREN 561 FRENCH DRAMA (3)** Development of the French theatre from medieval to modern times; its literature and staging, illustrated by representative plays. Shifting emphasis from semester to semester. Conducted in French. Prerequisite: FREN 321, 322.

**FREN 570-592 DIRECTED READINGS IN FRENCH (1-3)** Discussion of a central topic with changing emphasis from year to year. Prerequisite: FREN 321 and 322, or equivalent.

**FREN 591-592 DIRECTED READINGS IN FRENCH (1-3)** Reserved for superior students under the guidance of a departmental adviser. Conducted in French. Prerequisite: Graduate standing.

**FREN 605 FRENCH STYLISTIQUES (3)** Practice in writing and comparison of style of various writers. Intensive and detailed textual explanation. Conducted in French. Prerequisite: Undergraduate degree in French or consent of department chairperson.

**FREN 633 SEMINAR ON FRENCH CLASSICISM** (3) The origins and underlying ideas of classicism. Conducted in French. Prerequisite: Undergraduate degree in French or consent of department chairperson.

**FREN 635 SEMINAR IN MEDIEVAL FRENCH LITERATURE** (3) Concentration on a particular topic or on one or two major authors; may be reelected once. Prerequisite: B.A. in French or consent of department chairperson.

**FREN 638 SEMINAR IN 18TH-CENTURY FRENCH LITERATURE** (3) The literature of the French Enlightenment, concentrating on one or two major authors. Conducted in French. Prerequisite: Undergraduate degree in French or consent of department chairperson.

**FREN 639 THE ROMANTIC ERA IN FRANCE** (3) Sources and theories of romanticism. Work of major French romantic writers. Conducted in French. Prerequisite: Undergraduate degree in French or consent of department chairperson.

**FREN 670-679 SPECIAL TOPICS IN FRENCH LANGUAGE, LITERATURE AND CIVILIZATION** (3) Discussion of a central topic with changing emphasis from year to year. Prerequisite: Undergraduate degree in French or consent of department chairperson.

## GENERAL STUDIES (GENL)

**GENL 501 TOPICS IN SOCIAL SCIENCE** (3) Issues and problems to be selected by the instructor and studied from the multiple approaches of various social sciences. Prerequisite: 15 credits in the social sciences.

**GENL 511 CREATIVE METHODS OF SOLVING PROBLEMS WORKSHOP** (3) The theory and practice of creative problem-solving techniques. Analysis and practical application of creative processes with atten-

tion to skills in data gathering, problem analysis, idea production, solution evaluation and strategy development for implementation. Individual and small group work will be employed. Prerequisites: PSYC 101, EDUC 445, GENL 203 or consent of instructor.

**GENL 521 INTERDISCIPLINARY WORKSHOP IN ASIAN STUDIES** (3) Intensive study of a chosen region of Asia, including its physical environment, historical development, government, society, culture and their interrelationships. An interdisciplinary team of faculty experts will participate, and the region of Asia studied will vary according to demand. Prerequisite: Approval of graduate program director.

## GEOGRAPHY AND ENVIRONMENTAL PLANNING (GEOG)

**GEOG 502 ENERGY RESOURCE** (3) Spatial patterns of traditional and alternative forms of energy will be analyzed. The many facets of the energy problem will be analyzed including physical deposits, economic variables, public policy implication and geographical patterns. Prerequisite: 6 credits of geography or consent of instructor.

**GEOG 503 SOILS AND VEGETATION** (3) A resource study of the world's soils and plant formations with emphasis placed upon their genesis and spatial differentiations. Prerequisites: GEOG 101 and one of the following: CHEM 101, BIOL 110, BIOL 201 or BIOL 205.

**GEOG 504 INTERPRETATION OF AERIAL PHOTOGRAPHS** (3) Reading and interpretation of aerial photographs. The application of the aerial photograph in the fields of geography, geology and photogrammetry.



**GEOG 505 CARTOGRAPHY AND GRAPHICS I (3)** Study in design, construction and effective application of maps and charts for analysis and publication; practical exercises in the use of cartographic tools, materials and techniques.

**GEOG 510 HISTORICAL GEOGRAPHY OF URBANIZATION (3)** Spatial and temporal development of urbanization and urban morphology from the rise of civilization in the ancient Near East to the contemporary post-industrial city. The entire scope of urban functions is surveyed, with the emphasis on the city as a man-made environment. Prerequisite: 6 credits of geography or consent of instructor.

**GEOG 511 CULTURAL GEOGRAPHY (3)** Study of origins and diffusion of cultures and the resulting impact in creating the world's contrasting cultural landscapes. Prerequisite: 6 credits of geography or consent of instructor (not open to students who have completed GEOG 221).

**GEOG 512 ECONOMIC GEOGRAPHY (3)** Designed to explain the location of economic activities through a series of principles and theories. Emphasis on the various sectors of the economy, transportation and economic development. Prerequisite: 6 credits of geography or consent of instructor (not open to students who have completed GEOG 231).

**GEOG 515 CLIMATOLOGY (3)** Character, causes and distribution of climatic types. Emphasis upon world pattern. Students may be required to do fieldwork. Prerequisite: 6 credits of geography or consent of instructor.

**GEOG 516 QUANTITATIVE METHODS IN GEOGRAPHY (3)** Focus on statistical problems associated with the analysis of geographic data. Emphasis on the unique spatial problems of point pattern analysis, aerial association and regionalization. Prerequisite: 6 credits of geography, MATH 119 or consent of instructor.

**GEOG 517 DESCRIPTIVE METEOROLOGY (3)** An introduction to the study of weather. Emphasis on the interaction of solar energy, air pressure, wind, and moisture in creating global weather patterns. Field work may be required. Prerequisite: 6 credits of natural science or geography or the equivalent.

**GEOG 518 INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEMS (3)** Hardware and software for the storage, retrieval, manipulation, analysis and display of data. Emphasizing raster-based geographic information systems. Prerequisite: 6 credits of geography (GEOG 109 and GEOG 221 are strongly recommended).

**GEOG 519 POLITICAL GEOGRAPHY (3)** Effect of political groupings upon human's use of the world and the influence of the geographic base upon political power. Prerequisite: 6 credits of geography or consent of instructor.

**GEOG 520 POPULATION GEOGRAPHY (3)** General population theory, data sources for population geographers and the processes of fertility, mortality and migration. Patterns of population growth and change viewed from both temporal and geographical perspectives. Prerequisite: 6 credits of geography or consent of instructor.

**GEOG 522 URBAN SYSTEMS I (3)** Survey of the structure, functions, forms and development of urban units. Emphasis upon the locational features of social, economic and cultural phenomena; fieldwork required. Prerequisite: 6 credits of geography or consent of instructor.

**GEOG 523 GIS APPLICATIONS (3)** Geographic information systems for solving real-world problems; vector-based GIS software, microcomputers for development of a GIS application. Prerequisite: Introduction to GIS or consent of instructor.

**GEOG 551 GROWTH OF GEOGRAPHIC THOUGHT (3)** History, nature and methodology of geography as a discipline.

Analysis of schools of geographic thought and critical evaluation of important geographic work. Prerequisite: 6 credits of geography or consent of instructor.

**GEOG 553 COMPREHENSIVE PLANNING (3)** The integration of separate urban systems into the comprehensive design of an urban region. Special emphasis will be placed on neighborhood, community and town planning. Fieldwork may be required. Prerequisites: GEOG 391 and GEOG 392 or equivalent and consent of instructor.

**GEOG 557 STUDIES IN NATURAL HAZARDS (3)** The nature, frequency of occurrence and distribution of environmental hazards and their impact on humans. Prerequisite: 6 credits of geography or consent of instructor.

**GEOG 559 GEOGRAPHICAL ASPECTS OF POLLUTION (3)** A systematic study of the spatial aspects of air and water pollution, with special emphasis on pollution in the Greater Baltimore area. Field trips will be conducted to pollution sites and pollution control agencies within the local area. Prerequisite: 6 credits of geography or consent of instructor.

**GEOG 560 GEOGRAPHY OF ANGLO-AMERICA (3)** Physical and cultural landscapes of the United States and Canada, including patterns of economic development of each region and their relationship to their environmental setting. Prerequisite: 6 credits of geography or consent of instructor.

**GEOG 561 GEOGRAPHY OF MARYLAND (3)** A geographical study of the Middle Atlantic region emphasizing Maryland in its megapolitan setting. Much attention will be given to the human and physical elements which have led to the prominence of this region. A supervised research paper will be an important part of this course. Prerequisite: 6 credits of geography or consent of instructor.

**GEOG 562 GEOGRAPHY OF AFRICA (3)** A systematic and regional approach to the study of people and environment of Africa, south of the Sahara. Special focus is placed on the distribution of natural resources and the historical-political development of each country as important background for the understanding of current African affairs. Prerequisite: 6 credits of geography or consent of instructor.

**GEOG 564 GEOGRAPHY OF EAST ASIA (3)** Regional studies of the physical and cultural foundations in China, Japan and Korea. Emphasis upon human and economic resources and role in world affairs. Prerequisite: 6 credits of geography or consent of instructor.

**GEOG 565 GEOGRAPHY OF THE MIDDLE EAST (3)** Analysis of Southwest Asia and North Africa, including major natural and cultural resources, related patterns of spatial organization, economic and political development and associated problems. Prerequisite: 6 credits of geography or consent of instructor.

**GEOG 566 GEOGRAPHY OF EUROPE (3)** Regional analysis and appraisal of the human geography and natural resources of Europe. Problems of nationality, economic development and cultural conflicts. Prerequisite: 6 credits of geography or consent of instructor.

**GEOG 567 GEOGRAPHY OF THE FORMER USSR (3)** Physical and cultural patterns and their bearing on the former Soviet Union as a world power. Regional distribution and use of natural and human resources in agriculture and industry. Problems in economic development and production. Prerequisites: 6 credits of geography or consent of instructor.

**GEOG 568 GEOGRAPHY OF LATIN AMERICA (3)** Analysis of Latin America will be focusing on the interrelationships be-

tween physical and cultural elements which provide a diversity of human habitats throughout the region. Prerequisite: 6 credits of geography or consent of instructor; may be repeated for a maximum of 6 credits.

**GEOG 570-579 SEMINAR: SELECTED TOPICS IN GEOGRAPHY (3)** Reading and research in selected topics in the field of geography. Seminar topics will be announced. Prerequisite: 6 credits of geography or consent of instructor.

**GEOG 582 GEOGRAPHY/ENVIRONMENTAL PLANNING INTERNSHIP (1-6)** Supervised placement and research in selected public and private agencies at appropriate institutions. Prerequisites: Consent of chairperson and 6 credits in geography. May be repeated for a maximum of 6 credits (not open to students who have completed 6 credits in GEOG 479).

**GEOG 583 FIELD GEOGRAPHY (2-6)** Practical laboratory experience in techniques in the collection and analysis of data by observations, measurements, mapping and photographic records. Such techniques are to be applied to selected geographic problems. Prerequisite: 6 credits of geography or consent of instructor.

**GEOG 584 TRAVEL AND STUDY (3-6)** Countries and topics to be selected by departments and instructors sponsoring the program. For complete information contact the chairperson of the department. Prerequisite: Consent of instructor; may be repeated for a maximum of 6 credits.

**GEOG 585 DIRECTED READING IN GEOGRAPHY (3)** Independent reading in selected areas of geography. Open by invitation from the geography department to students taking a major or minor in geography. Prerequisites: 15 credits in geography and a minimum average of 3.00 in geography. May be repeated for a maximum of 6 credits.

**GEOG 586 INDEPENDENT STUDY IN GEOGRAPHY (1-6)** Independent research, study or field experience under supervision of a member of the geography faculty. Designed for advanced students who wish to conduct independent investigation on aspects of geography which are of special interest or not covered in other courses. Registration arranged with department chairperson. Prerequisites: Advanced undergraduate standing with at least 18 credits in geography or graduate standing. May be repeated for a maximum of 6 credits.

**GEOG 587 ENVIRONMENTAL IMPACT ANALYSIS (3)** The collection and analysis of physical, social, biological and economic information for the preparation of environmental impact statements (EIS). Prerequisite: 6 credits of geography or consent of instructor.

**GEOG 601 SEMINAR ON GEOGRAPHICAL PERSPECTIVES (3)** Study of major subfields of geography as they have emerged in the 20th century and their differing viewpoints. Prerequisite: Graduate standing.

**GEOG 621 RESEARCH TECHNIQUES (3)** Investigating the primary sources of information in geography and learning the nature of original investigation. Prerequisite: Graduate standing.

**GEOG 631 REMOTE SENSING (3)** Remote-sensing systems. Interpretation and use of the data products, with emphasis on Land Satellite Imagery (Landsat). Prerequisite: Consent of department.

**GEOG 641 APPLIED PHYSICAL GEOGRAPHY (3)** Physical environment as it influences and is altered by human activities. Prerequisite: GEOG 101 (or equivalent).

**GEOG 651 SEMINAR IN APPLIED-POPULATION GEOGRAPHY (3)** Focus on obtaining, interpreting and using population data for applied purposes. Prerequisite: Consent of instructor.

**GEOG 652 SEMINAR IN MEDICAL GEOGRAPHY (3)** Medical geographic principles and techniques applied to the study of health issues in contemporary society. Emphasis on tools, methodology and problem-solving situations. Prerequisite: GEOG 375 or consent of instructor.

**GEOG 661 STUDIES IN ECONOMIC GEOGRAPHY (3)** The study of selected geographical topics dealing with spatial distributions of economic activities. Topics will be announced. Prerequisite: Consent of department (no more than 6 credits may be applied toward a degree).

**GEOG 671 STUDIES IN PHYSICAL GEOGRAPHY (3)** Selected geographical topics dealing with physical landscape phenomena, especially with regard to distribution, relationships and significance to mankind. Topics will be announced. Prerequisite: Consent of department (no more than 6 credits may be applied toward a degree).

**GEOG 672-679 SPECIAL TOPICS IN GEOGRAPHY AND ENVIRONMENTAL PLANNING (3)** Topics in geography or environmental planning. Varies each semester. Prerequisite: Consent of department.

**GEOG 681 SEMINAR IN POLITICAL GEOGRAPHY (2-6)** Special subjects dealing with geography of international politics, e.g. boundary problems, global strategy, space, sovereignty. Topics to be announced. No more than 6 credits may be applied toward a degree. Prerequisite: Consent of department.

**GEOG 683 SEMINAR: ENVIRONMENTAL PROBLEMS IN MARYLAND (3)** Individual research on a selected environmental problem in Maryland. Prerequisite: Consent of department.

**GEOG 691 URBAN GEOGRAPHY STUDIES (2-6)** Selected topics dealing with the application of geography to planning, retail and industrial location, and trade analysis; topics to be announced. Prerequisite: Con-

sent of department (no more than 6 credits may be applied toward a degree).

**GEOG 701 LAND USE STUDIES (2-6)** Selected problems of urban, rural and rural-urban landscapes, which consider and account for geographic differences in land utilization; topics to be announced. Prerequisite: Consent of department (no more than 6 credits may be applied toward a degree).

**GEOG 771 SEMINAR IN REGIONAL GEOGRAPHY (2-6)** Description, analysis and interpretation of natural and cultural phenomena in certain significant geographic regions; seminar topics will be announced. Prerequisite: Consent of department (no more than 6 credits may be applied toward a degree).

**GEOG 797 RESEARCH (2-6)** Investigation of problem or problems based upon field and library study, which will contribute to geographical knowledge. Prerequisite: Consent of department (no more than 6 credits may be applied toward a degree).

**GEOG 897 MASTER'S THESIS (6)** Prerequisites: GEOG 621 and consent of department.

**GEOG 898 THESIS (3)** The previous course, GEOG 897, taken over two consecutive semesters.

**GEOG 899 THESIS CONTINUUM (1)**

## GEOLOGY (GEOL)

**GEOL 505 ENVIRONMENTAL GEOLOGY (4)** Earth's natural surface systems (hydrologic, atmospheric and climatic); causes and extent of human modifications; potential solutions to resulting problems. Prerequisite: GEOL 121.

**GEOL 515 HYDROGEOLOGY (4)** Geologic aspects of ground water; origin, occurrence and movement; resource evaluation; flow modeling and contamination. Prerequisites:

Required: CHEM 102, PHYS 212 or PHYS 242; recommended: GEOL 321 and GEOL 443.

**GEOL 521 STRUCTURAL GEOLOGY (4)** Description and interpretation of shape and internal fabric of deformed rock bodies and analysis of mechanics by which they were deformed. Prerequisites: GEOL 121 and PHYS 211 or equivalent.

**GEOL 531 MINERALOGY (4)** The study of minerals with emphasis on crystallography, crystal chemistry and chemical-structural classification. Laboratory identification of minerals both in hand specimen and thin section by application of principles of optical mineralogy. Three lecture hours and two hours of laboratory. Prerequisites: GEOL 121 and CHEM 110.

**GEOL 533 PETROLOGY OF IGNEOUS AND METAMORPHIC ROCKS (4)** Study of the properties and genesis of two major rock groups. Megascopic and microscopic techniques in rock classification. Environments of formation. Three lecture hours and two hours of laboratory. Prerequisite: GEOL 331.

**GEOL 541 OPTICAL MINERALOGY AND PETROGRAPHY (3)** Course includes the theory and application of polarized light and elements of crystallography in the analysis of rock-forming minerals by use of a petrographic microscope. Prerequisite: GEOL 333.

**GEOL 543 SEDIMENTOLOGY AND STRATIGRAPHY (4)** Production, transport and deposition of sediments and sedimentary bodies for the development of facies models useful in interpretation of the stratigraphic records. Prerequisites: GEOL 121 and CHEM 110. Not open to students who have successfully completed PHSC 443.

**GEOL 551 PETROLOGY OF SEDIMENTARY ROCKS (3)** Macro- and microscopic analysis of sedimentary rocks. Classifications and diagenetic processes. Prerequisite: GEOL 443. Offered spring semester alternate years.

**GEOL 557 PHYSICAL OCEANOGRAPHY (3)** Physical, chemical and geologic characteristics of ocean basins, boundaries and sea water including origin and behavior of waves and currents. Prerequisites: PHYS 211 or PHYS 241 and CHEM 110, or consent of instructor.

**GEOL 570-579 SPECIAL TOPICS IN GEOLOGY (1-4)** The study of special topics in the Geosciences. Special topics will be determined by their need for study and relevance to existing courses. May be repeated for a maximum of 6 credits provided a different topic is covered. Special permit required.

## GERONTOLOGY (GERO)

**GERO 510 SOCIAL ISSUES IN HUMAN LIFESPAN TECHNOLOGY (3)** Technologies that provide a longer and better quality life; social, financial, ethical and legal implications. Prerequisites: BIOL 110, GERO 101.

**GERO 530 COMMUNITY PLANNING FOR AN AGING SOCIETY (3)** Multidisciplinary approach to the urban environment as a physical and social context for the diverse lifestyle of its older residents. Theoretical approaches to aging and the environment with emphasis on the impact of communities and built environments.

**GERO 550 DIRECTED READINGS IN GERONTOLOGY (3)** Systematic inquiry into a topic of the student's choice. Prerequisites: Graduate standing and consent of adviser.

**GERO 601 SEMINAR IN PROFESSIONAL GERONTOLOGICAL ISSUES (3)** Issues related to demographic changes, community services and standards for specific service areas.

**GERO 610 APPLIED RESEARCH METHODS (3)** Research methods for applied practice settings. Prerequisite: PSYC 212 or consent of instructor.

**GERO 620 LEGAL ISSUES IN GERONTOLOGICAL PRACTICE (3)** Legal and regulatory issues in gerontological practice.

**GERO 625 GERIATRIC CARE MANAGEMENT (3)** Fundamental principals and practice standards of professional geriatric care management.

**GERO 684 GERONTOLOGICAL PRACTICUM (3)** Supervised practicum in community agency or organization. Prerequisites: Substantial completion of M.S. program and permission of faculty adviser.

**GERO 685 INDEPENDENT STUDY IN GERONTOLOGICAL PRACTICE (3)** Independent research in gerontological practice area. Prerequisites: Substantial completion of M.S. program and permission of faculty adviser.

## GERMAN (GERM)

**GERM 570-579 SPECIAL TOPICS IN GERMAN (3)** Discussion of a central topic, with changing emphasis from year to year. Conducted in German. Prerequisite: GERM 321 or equivalent.

**GERM 591-592 DIRECTED READINGS IN GERMAN (1-3)** Reserved for superior students under the guidance of a departmental adviser. Conducted in German. Prerequisite: Graduate standing.

**GERM 670-679 SPECIAL TOPICS IN GERMAN (3)** Discussion of a central topic concerning literature and society, with changing emphasis from year to year. Prerequisite: Undergraduate degree in German or consent of department chairperson.

## HEALTH CARE MANAGEMENT (HCMN)

**HCMN 517 LONG-TERM CARE ETHICAL PROBLEMS (3)** Applying long-term care law, rules, theory and clinical and administrative best practice to the solution of

practical ethical problems common in long-term care. Prerequisite: HLTH 207 or instructor's permission.

**HCMN 519 LONG-TERM CARE ADMINISTRATION (3)** An introduction to institutional and community-based long-term care facility administration. Examines law, rules and nationally established domains of nursing home and residential care managerial practice within an ethically based philosophy of care. Prerequisites: HLTH 207, HLTH 305, and HCMN 413 or instructor's permission.

**HCMN 541 LEGAL AND ETHICAL ISSUES IN HEALTH ADMINISTRATION (3)** Examines legal and ethical issues in the administration of health programs. Emphasis is placed on the impact of cost-containment efforts, quality and malpractice concerns, profit seeking in health, biomedical advances and new delivery mechanisms. Prerequisite: Consent of instructor. (formerly HLTH 541)

## HEALTH SCIENCE (HLTH)

**HLTH 501 TEACHING ABOUT DRUGS AND SEX (3)** Content, procedures and methods for presenting sensitive subjects, including human sexuality and drugs. Prerequisite: Permit only.

**HLTH 505 DRUGS IN OUR CULTURE (3)** In-depth review of harmless, harmful, useful and useless substances which may affect behavior or mood; the interaction of psychological, sociological and physiological components included. Prerequisite: Permit only.

**HLTH 507 VIOLENCE PREVENTION FOR HEALTH EDUCATORS (3)** Developing effective violence prevention programming for future school and community health educators. Prerequisite: SOCI 358 or consent of instructor.

**HLTH 511 HEALTH AND LATER MATURITY: THE AGING PROCESS (3)** An approach to the conservation of human re-

sources with an emphasis on understanding attitudes and practices related to health in later maturity. Designed for students with a personal or professional interest in the field.

**HLTH 551 ECOLOGICAL ASPECTS OF HEALTH (3)** Examination of the interrelationship between man and his environment. Emphasis is placed upon health aspects of pollution, housing, sanitation, radiation, behavioral disorders and epidemiology. Prerequisite: Permit only.

**HLTH 570-579 HEALTH WORKSHOP (3)** For teachers, administrators and individuals concerned about health-related fields. Contemporary health aspects are considered with emphasis on implementation of positive behavior aimed at improving the health of the individual and the community. Students who elect this course for 6 credits will participate in two workshops. Enrollment is limited to 25.

**HLTH 591 HEALTH-DIRECTED READINGS (1-3)** Independent reading in health or related disciplines. Prerequisite: Permit only.

**HLTH 594 HEALTH TRAVEL AND STUDY (3)** Examination of various types of health care delivery in the countries and cities visited in comparison with that of the United States. For complete information contact the department chairperson. Prerequisites: HLTH 101 and either HLTH 201 or HLTH 202 or consent of instructor.

**HLTH 595 [695] INDEPENDENT STUDY (3)** Directed study on specific problems in health and related fields. Prerequisite: Permit only.

**HLTH 601 CONTEMPORARY ISSUES IN SCHOOL HEALTH EDUCATION (3)** Structure, organization, scope, content and practices in school health as revealed through literature and research.

**HLTH 611 CURRENT LITERATURE IN HEALTH (3)** Research findings concerning knowledge, attitudes, behavior and educa-

tional techniques in health. A comprehensive review of health-related periodicals. Prerequisite: Permission of instructor.

**HLTH 615 COMMUNITY HEALTH: QUALITATIVE AND QUANTITATIVE ELEMENTS (3)** Vital and health statistics, population dynamics, epidemiology, quantitative models and simulation for health systems planning/evaluation. Prerequisite: Permit only.

**HLTH 617 HEALTH ADMINISTRATION (3)** Dynamics of the health industry: concepts of management and administration. Prerequisite: Permission of instructor.

**HLTH 619 ORGANIZING SYSTEMS OF CARE FOR CHRONICALLY ILL AND PHYSICALLY DEPENDENT POPULATIONS (3)** This course will offer an in-depth examination of the public and private sectors of the long-term care industry as well as the political and regulatory structures that impact them. Issues of access and availability to services and housing options will be discussed in the context of relevant research examining costs and quality of care. Readings and class discussions will focus on managerial challenges associated with developing more efficient systems of care for populations with special needs (e.g., the frail elderly, developmentally challenged, non-aged physically disabled, etc.). Prerequisite: HLTH 617 or consent of instructor.

**HLTH 625 RESEARCH METHODS IN HEALTH (3)** Research and statistical designs related to health science and allied health disciplines. Prerequisite: HLTH 615.

**HLTH 627 HEALTH AND WORKER PERFORMANCE (3)** Analyzes health issues that affect worker performance, e.g., high blood pressure, cancer, substance abuse, divorce, career crises, aging, AIDS, sexual abuse and child-care arrangements, from the view of the employee. Emphasis is on the content of each issue with direct application to worksite problems. Prerequisite: HLTH 631.

## 200 COURSE DESCRIPTIONS

**HLTH 631 PROGRAM PLANNING IN HEALTH EDUCATION (3)** Planning models in health with integration to program planning for health information and health promotion. Skills developed in proposal writing. Prerequisite: Permission of instructor.

**HLTH 633 HEALTH CARE SYSTEMS (3)** Development of the American health care system and trends in organization, administration, funding and legislation. Prerequisite: Permission of instructor.

**HLTH 635 EDUCATIONAL STRATEGIES FOR HEALTH (3)** A seminar analyzing the application of education and social science theories for health promotion and health education. Prerequisite: Permission of instructor.

**HLTH 637 SKILL DEVELOPMENT: LEADERSHIP IN THE HEALTH CARE SETTING (3)** Didactic and experiential activities in community health education with emphasis on human interaction leadership skills. Prerequisite: Permission of instructor.

**HLTH 639 INTRODUCTION TO HEALTH BEHAVIOR & HEALTH PROMOTION (3)** Course provides the foundation for understanding health promotion and health behavior. Aspects of organizing, marketing, implementing and evaluating health promotion programs are addressed.

**HLTH 643 HEALTH EDUCATION: CURRICULUM DEVELOPMENT AND SUPERVISION (3)** Methods and techniques for designing and implementing school health education. Prerequisite: Permission of instructor.

**HLTH 645 HEALTH CARE POLICY (3)** An examination of public and private health care policy making and implementation. Particular attention is paid to current policy issues and to the roles and powers of consumers, administrators, legislators and regulators. Prerequisite: Permission of instructor.

**HLTH 647 HEALTH CARE FINANCIAL MANAGEMENT (3)** Examines financial as-

pects of health care, including accounting and budgeting. Aspects of production, distribution and organization and health services are reviewed from financial and economic perspectives. Prerequisite: HLTH 615. Also listed as IDHP 647.

**HLTH 649 PROGRAM EVALUATION (3)** This course will describe the purpose, applications and role of evaluation and promotion programs. It will enable the students to understand and apply three levels of evaluation: process evaluation, program evaluation and evaluation research. Prerequisite: HLTH 631.

**HLTH 651 PLANNING AND MARKETING HEALTH IN BUSINESS AND INDUSTRY (3)** Health promotion and delivery in the profit and not-for-profit sectors. Concepts and application of planning and marketing health in various settings. Prerequisite: HLTH 617. Also listed as IDHP 651.

**HLTH 670-679 SPECIAL TOPICS (3)** Focuses on currently important health topics: fitness in a hypokinetic world, aging, death, alcohol and its abuse, consumerism, disease, weight control, value clarification and development of a personal philosophy of health. Prerequisite: Permit only.

**HLTH 689 FIELD EXPERIENCE (3-9)** Supervised, on-site experience in the following community health settings: hospital, clinic, agencies, business/industry. Prerequisite: Permit only.

**HLTH 691 DIRECTED READINGS IN HEALTH (3)** Individual study of a problem in health through consultation with faculty members. Prerequisite: Permit only.

**HLTH 785 GRADUATE SEMINAR IN HEALTH (3)** Analysis of research trends and issues in health education. Student presentation of research designs and projects. Professional membership and ethics. Prerequisite: HLTH 625.



**HLTH 880 GRADUATE PROJECT IN HEALTH SCIENCE (3)** Individual study and preparation of a project which is oriented toward the application of specific techniques in health education. Prerequisite: HLTH 785.

**HLTH 885 PROJECT CONTINUATION (1)** Continuation of graduate project. Prerequisite: Previous registration for project work.

**HLTH 897 MASTER'S THESIS IN HEALTH (6)** An original investigation using an acceptable research method and design conducted under the direction of one or more faculty members. Prerequisite: HLTH 785.

**HLTH 898 THESIS (3)** The previous course, HLTH 897, taken over two consecutive semesters.

**HLTH 899 THESIS CONTINUUM (1)**

## **HISTORY (HIST)**

**HIST 501 ANCIENT NEAR EASTERN CIVILIZATIONS (3)** The civilizations of Mesopotamia and Egypt and the peripheral developments in Syria-Palestine and Asia Minor. Prerequisite: HIST 101 or consent of instructor.

**HIST 502 HISTORY OF SOUTHERN AFRICA (3)** Social and cultural change in South Africa from early times to present. Prerequisite: HIST 135 or consent of instructor.

**HIST 503 ALEXANDER THE GREAT AND HIS SUCCESSORS (3)** Conquests of Alexander the Great: culture and religion of Greece and Near East in the Hellenistic period. Prerequisite: HIST 101 or consent of instructor.

**HIST 504 ANCIENT GREEK CIVILIZATION (3)** The civilization of classical Greece, including the Minoan and Mycenaean bronze age antecedents, to 362 B.C. Prerequisite: HIST 101 or consent of instructor

**HIST 505 ROMAN CIVILIZATION (3)** The civilization of ancient Rome from the foundation of the city to the collapse of the Roman Empire in the West. Prerequisite: HIST 101 or consent of instructor.

**HIST 506 WOMEN IN 20TH-CENTURY U.S. HISTORY (3)** A multicultural perspective on politics, work, family and sexuality in women's lives in the United States from 1900 to present. Prerequisites: HIST 145, and either HIST 146 or HIST 148.

**HIST 507 DEMOCRATIZATION IN LATIN AMERICA (3)** Analysis of the failure and successes in building democratic political institutions in Latin America; emphasis on 1930s to present. Prerequisite: HIST 122 or permission of instructor.

**HIST 508 LIFE HISTORIES OF AFRICAN WOMEN (3)** Methodological analysis of lives of selected African women from diverse African cultures compared with the lives of women throughout the world. Prerequisites: 6 credits from history and /or women's studies.

**HIST 509 TRADITIONAL INDIA: ITS HISTORICAL DEVELOPMENT (3)** Development of the history and culture of India from prehistoric times until the beginnings of European dominance in the 18th century. Prerequisite: 6 credits in history or consent of instructor.

**HIST 510 HISTORY OF MODERN INDIA (3)** The history of the Indian subcontinent since 1750. Stressing the rise of British power, the colonial experiences, the development of nationalist movements and the problems of independence in present-day India, Pakistan and Bangladesh. Prerequisite: 6 credits in history or consent of instructor.

**HIST 511 HISTORY OF MODERN SOUTHEAST ASIA (3)** The development of Burma, Thailand, Malaysia, Indonesia, Cambodia, Vietnam and the Philippines since 1500, with emphasis on the colonial experience and development of modern nationhood. Prerequisite: 6 credits in history or consent of instructor.

**HIST 512 IMPERIAL CHINA: THE LAST DYNASTY (3)** Ching (Qing) Dynasty, 1644-1912; focus on the 19th-century collision of imperial China and the West. Prerequisite: HIST 111 or 6 credits of history.

**HIST 513 REVOLUTIONARY CHINA (3)** The ongoing Chinese revolution from the overthrow of the imperial government through the Nationalist and Communist periods. Prerequisite: HIST 111 or 6 credits in history.

**HIST 514 THE ANDEAN REPUBLICS (3)** Social, economic and political developments in Peru, Bolivia and Ecuador from independence to the present.

**HIST 516 BRITISH HISTORY: 1760-1902 (3)** Political change and transformation of British government from George III until emergence from Splendid Isolation. Explores growth of the imperial system. Prerequisite: HIST 103 or HIST 108.

**HIST 517 STUART ENGLAND: 1603-1714 (3)** Seventeenth-century English society, culture, politics, and religion. Topics: civil wars, Regicide, political thought, constitutionalism, politics of Caroline and Restoration culture, ideas of social order. Prerequisite: History 102 or consent of instructor.

**HIST 519 JAPAN, 1830-1930 (3)** Japan's transition from feudalism and national seclusion to emergence as a modern nation-state with an overseas empire and a parliamentary form of government. Prerequisites: HIST 110, HIST 111 or 6 credits in history.

**HIST 520 JAPAN, 1930-PRESENT (3)** Japan's transition from militarism and foreign aggression in the 1930s to postwar pacifism, democracy and dynamic economic growth. Prerequisites: HIST 111, HIST 119 or 6 credits in history.

**HIST 521 HISTORY OF MEXICO: PRE-COLUMBIAN AND COLONIAL (3)** The

political, economic, social and cultural developments from early pre-Columbian civilizations to the movement for independence. Prerequisite: 6 credits in lower-division history.

**HIST 522 HISTORY OF MEXICO: NATIONAL PERIOD (3)** The political, economic, social and cultural developments from independence to the present. Prerequisite: 6 credits in lower-division history.

**HIST 526 GAYS AND LESBIANS IN U.S. HISTORY (3)** Multicultural perspectives on gay and lesbian cultures and communities and their struggles against institutionalized homophobia in education, the military, the media, medicine, religion and government. Prerequisite: 3 credits in history or women's studies, or consent of instructor.

**HIST 527 EUROPEAN MILITARY HISTORY 1871-1925 (3)** Minor wars of 1871-1913, the buildup to World War I, the war and its aftermath seen in the context of diplomatic, political and socioeconomic history. Prerequisite: HIST 103 or HIST 108 or consent of the instructor (not open to students who have completed HIST 413).

**HIST 528 UNITED STATES AND VIETNAM 1945-1975 (3)** U.S. Vietnamese political, diplomatic and military relations from the end of World War II, to the support of France and the direct U.S. involvement. Prerequisites: HIST 146 (148), 151 or consent of instructor.

**HIST 529 EUROPEAN MILITARY HISTORY 1925-1945 (3)** Military institutions of the interwar period, the buildup to World War II and the European War, seen in the context of diplomatic, political and socioeconomic history. Prerequisite: HIST 103 or HIST 108 or consent of the instructor (not open to students who have completed HIST 413).

**HIST 530 (310) NATIONALISM IN 20TH CENTURY EAST AND SOUTHEAST ASIA (3)** Introduction to the contentious issue of nationalism and state-building

through belief case studies of China, Japan, Vietnam and Indonesia. Prerequisites: 6 credits of history.

**HIST 531 AMERICAN MILITARY HISTORY 1898-1945 (3)** Campaigns, tactics and institutional development of the armed forces in peace and war, seen in the context of politics and diplomacy; emphasis on World War II. Prerequisite: HIST 146.

**HIST 532 AMERICAN MILITARY HISTORY SINCE 1945 (3)** Campaigns, tactics and institutional development of the armed forces in peace and war, seen in the context of politics and diplomacy; emphasis on Korea and Vietnam. Prerequisites: HIST 145 and HIST 146.

**HIST 533 THE AMERICAN COLONIES: 1492-1763 (3)** Founding and the political, economic and social development of the American colonies. Prerequisite: HIST 145 or HIST 241 or consent of instructor.

**HIST 534 THE AMERICAN REVOLUTIONARY PERIOD: 1763-1789 (3)** From the end of the Seven Years' War to the ratification of the Constitution. Prerequisite: HIST 145 or HIST 241 or consent of instructor.

**HIST 535 THE EARLY NATIONAL PERIOD (3)** The United States from the Constitutional Convention to the election of 1820; the Federalist Decade and the Jeffersonian Era. Prerequisite: HIST 145.

**HIST 537 THE CIVIL WAR (3)** Sectionalism, the coming of the war and the war years. Emphasis on political, economic and social issues. Prerequisite: HIST 145.

**HIST 539 THE U.S. 1865-1901: AGE OF ENTERPRISE (3)** Industrialization of the United States, the rise of big business and an examination of resulting problems in economic, social and political life. Prerequisites: HIST 145, and either HIST 146 or HIST 148.

**HIST 540 THE U.S. 1892-1920: AGE OF REFORM (3)** America's efforts to deal with the political, social and economic problems of industrial life; emphasis on the Populist movement; imperialism and the Spanish-American War; the administrations of Theodore Roosevelt, William Howard Taft and Woodrow Wilson. Prerequisites: HIST 145, and either HIST 146 or HIST 148.

**HIST 541 THE F.D.R. ERA (3)** History of the United States from the 1920s through World War II, with emphasis on the presidential years of Franklin D. Roosevelt. Prerequisites: HIST 145 and either HIST 146 or HIST 148.

**HIST 544 SOCIAL HISTORY OF THE UNITED STATES TO 1865 (3)** History of American life from the 17th century to the Civil War, focusing on problems relating to social structure, popular culture and family, and religious and educational institutions. Prerequisite: HIST 145.

**HIST 545 SOCIAL HISTORY OF THE UNITED STATES SINCE 1865 (3)** History of American life from the Civil War to the present, focusing on problems relating to social structure, popular culture and family, religious and educational institutions. Prerequisites: HIST 145 and either HIST 146 or HIST 148.

**HIST 546 A HISTORY OF AMERICAN BUSINESS (3)** A study of industry, finance, commerce and agriculture from the Civil War to the present. Prerequisites: 3 credits in history and either consent of instructor or junior standing.

**HIST 547 CONSTITUTIONAL HISTORY OF THE UNITED STATES TO 1863 (3)** Development of American constitutionalism in theory and practice to 1868. Prerequisites: HIST 145 and either HIST 146 or HIST 148.

**HIST 548 THE BILL OF RIGHTS AND THE CONSTITUTION: 1941 TO THE PRESENT (3)** Interpretation of the Bill of Rights before and after the Warren Court.

**Prerequisites:** HIST 145 and either HIST 146 or HIST 148.

**HIST 550 DIPLOMATIC HISTORY OF THE UNITED STATES SINCE 1900 (3)** Continuation of HIST 369 to the present with added interest in the emergence of the United States as a major world power. The role of the United States in modern warfare, worldwide economic and financial affairs, overseas expansion, the diplomatic impact of conflict in ideologies and current international crises. **Prerequisites:** HIST 145 and either HIST 146 or HIST 148.

**HIST 552 THE FAR WESTERN FRONTIER (3)** The expansion into the trans-Mississippi West and the impact of the frontier process on the attitudes of the American people and on the social, economic and political institutions of the United States in the 19th and 20th centuries. **Prerequisites:** HIST 145 and either HIST 146 or HIST 148.

**HIST 553 THE CITY IN AMERICAN HISTORY (3)** The development of the city and its impact on American social, cultural, intellectual, political and economic life. **Prerequisites:** HIST 145, HIST 146 or HIST 148 or two of the following: GEOG 391, SOCI 327, POSC 305 or consent of instructor.

**HIST 555 HISTORY OF NATIVE AMERICANS: THE EAST (3)** Topical and regional ethnohistory of the native peoples of Eastern America and their relations with non-native peoples and governments, precontacts to the present. **Prerequisite:** 3 credits in American history.

**HIST 556 HISTORY OF NATIVE AMERICANS: THE WEST (3)** Topical and regional ethnohistory of the native peoples of Western America and their relations with non-native peoples and governments, precontacts to the present. **Prerequisite:** 3 credits of American history (Indian-White Relations in American History).

**HIST 558 WORKERS AND WORK IN THE UNITED STATES (3)** The changing nature of agricultural, domestic and industrial work; business-labor relations; labor unions and leaders; role of labor in mainstream and radical political movements. Emphasis on the late 19th and 20th centuries. **Prerequisites:** HIST 145 and either HIST 146 or HIST 148.

**HIST 560 HISTORY OF MARYLAND FROM COLONIAL TIMES TO THE PRESENT (3)** Major events and forces that have shaped the political, social, cultural and economic development of Maryland. **Prerequisite:** 3 credits in United States history.

**HIST 563 AFRICAN-AMERICAN HISTORY TO THE MID-19TH CENTURY (3)** Political, economic and social history of African Americans from their African origins through the antebellum period. **Prerequisite:** HIST 145.

**HIST 564 AFRICAN-AMERICAN HISTORY FROM THE MID-19TH CENTURY (3)** Political, economic and social history of African Americans from the Civil War through the civil rights era. **Prerequisites:** HIST 145 and either HIST 146 or HIST 148.

**HIST 565 IMMIGRANTS AND IMMIGRATION IN THE U.S. (3)** Comparative social, cultural and economic history of selected ethnic groups and their relationship to the dominant culture; emphasis on the late 19th and 20th centuries. **Prerequisite:** 3 credits of United States history or consent of the instructor.

**HIST 566 COMPARATIVE HISTORY OF THE MODERN FAMILY (3)** Impact of economic, social and reproductive changes on family life and structure. **Prerequisite:** 3 credits of history, sociology or women's studies.

**HIST 567 THE EARLY MIDDLE AGES: 300-1050 (3)** The rebuilding of Europe after the collapse of the Roman Empire. Emphasis

on the Church Fathers, the Germanic tribes, Carolinian culture, feudalism and the Vikings. Prerequisite: HIST 102 or consent of instructor.

**HIST 569 THE RENAISSANCE ERA: 1300-1500 (3)** Political, economic, social and cultural changes in late medieval and Renaissance Europe. Prerequisite: HIST 102 or consent of instructor.

**HIST 570 THE REFORMATION: 1500-1648 (3)** Religious, political, economic and social changes in Reformation and Counter-Reformation Europe. Prerequisite: HIST 102 or consent of instructor.

**HIST 576 DIPLOMATIC HISTORY OF EUROPE: 1815-1939 (3)** An in-depth study of specific diplomatic crises, with emphasis on the impact of each upon the European balance of power. Prerequisite: HIST 103 or HIST 108.

**HIST 577 ECONOMIC HISTORY OF EUROPE TO THE MID-18TH CENTURY (3)** A study of the European economy to the middle of the 18th century. Particular attention will be given to the development of commerce, capitalism, manufacture and mercantilism. Prerequisite: HIST 102.

**HIST 580 GREAT BRITAIN IN THE 20TH CENTURY (3)** Political, social and economic developments in Great Britain from 1897 to the present with emphasis on social reform, the two World Wars, Socialism and the Labor Party, economic decline, the dismantling of the Empire and entry into the European community. Prerequisite: HIST 103 or HIST 108.

**HIST 581 FRANCE: 1763-1871 (3)** Old Regime and the impact of successive revolutions upon French society. Emphasis upon the role of France in the growth of European liberalism and nationalism. Prerequisite: HIST 103 or HIST 108.

**HIST 584 RUSSIA/SOVIET UNION: 1894-1953 (3)** Political, ideological, economic and cultural factors influencing the fall of the monarch, the Bolshevik Revolution, Leninism and Stalinism. Prerequisite: HIST 231 or HIST 103 or HIST 108 or consent of instructor.

**HIST 585 HISTORY OF SOVIET RUSSIA SINCE STALIN: 1953 TO PRESENT (3)** Topical analysis of political history and theory, economic development, foreign affairs, social change, and cultural and literary trends. Prerequisite: HIST 151 or HIST 231 or HIST 108 or consent of instructor.

**HIST 586 EUROPE IN THE THIRD WORLD: COLONIALISM TO CRISIS (3)** The impact of modern European colonialism on the societies of the Third World, chiefly Africa and Asia. Primary emphasis on the 19th and 20th centuries. Prerequisite: HIST 103 or HIST 108 or consent of instructor.

**HIST 590 INTERPRETIVE PROBLEMS IN HISTORY (3)** An in-depth study of historical interpretations of selected topics; may be repeated in a different topic for a total of 6 credits. Prerequisite: 12 credits in history appropriate to topic.

**HIST 591 BIOGRAPHICAL STUDIES IN HISTORY (3)** A study of selected historical figures who have shaped or reflected the past. Figures to be selected by the instructor; may be repeated in different historical figures for a total of 6 credits. Prerequisite: 6 credits in history appropriate to topic.

**HIST 592 HISTORICAL THEMES (3)** A study through lectures and discussions of a historical topic selected by the instructor; may be repeated in a different topic for a total of 6 credits. Prerequisite: 6 credits in history appropriate to topic.

**HIST 593 DIRECTED INDIVIDUAL RESEARCH (2-4)** Research and reading dealing with a historical topic to be selected by the

instructor and student; considerable attention to methodology; may be repeated for a total of 6 credits. Prerequisites: 15 credits in history and a minimum average of 3.00 in history and consent of instructor and department chairperson.

**HIST 594 TRAVEL AND STUDY (3-6)** Countries and topics to be selected by the departments and instructors sponsoring the program. For complete information, write the chairperson of the department early in the fall of the academic year preceding the semester of intended study; may be repeated in different countries and topics for a total of 6 credits. Prerequisites: Upper-division status and consent of instructor.

**HIST 596 COLLOQUIUM (3)** Group discussion of reading in history or related disciplines approached from a viewpoint that is primarily historical and dealing with broad periods, topics, problems or comparative developments selected by the instructor(s); may be repeated in a different topic for a total of 6 credits. Prerequisites: Consent of instructor and 15 credits in history or 9 credits in history and 6 credits in the related discipline.

**HIST 597 DIRECTED READING (2-4)** Independent reading in history or related disciplines approached from a viewpoint that is primarily historical and dealing with specific periods, topics, problems or comparative developments selected by the student in consultation with the instructor(s); may be repeated for a total of 6 credits. Prerequisites: 15 credits in history or 9 credits in history and 6 credits in the related discipline and a minimum average of 3.00 in history and the related discipline and consent of department chairperson.

**HIST 599 THE MAKING OF THE MODERN MIDDLE EAST (3)** Ethnic, political, religious and economic factors that have shaped the Middle East since 1798. Prerequisite: HIST 107 or 6 credits in history or consent of instructor.

**HIST 607 LATIN AMERICA AND THE UNITED STATES (3)** Graduate seminar on Latin American/U.S. relations. Emphasis on the social and cultural implications of U.S. power and influence in Latin America. Comparative analysis of Latin American responses to U.S. actions. Prerequisite: Admission to graduate program.

**HIST 609 MODERN THEORIES OF WAR (3)** Theories of the meaning and conduct of war since the Enlightenment; emphasis on European and American thought and practice with some attention to non-Western contributions. Prerequisite: Admission to graduate program.

**HIST 617 HISTORY INTERNSHIP (3)** Practical experiences within the historical profession. Prerequisite: Approval of the department chairperson.

**HIST 683 DIRECTED INDIVIDUAL RESEARCH (2-4)** Research and reading with a historical topic to be selected by the instructor and student. Prerequisite: Graduate standing and 18 credits of history and consent of the instructor and department chairperson.

**HIST 697 DIRECTED READING IN HISTORY (2-4)** Reading in areas of history selected by the instructor and the student. Prerequisites: Graduate standing and 18 credits of history and consent of the instructor and department chairperson.

## **HUMAN RESOURCE DEVELOPMENT (HRD)**

**HRD 601 INTRODUCTION TO HUMAN RESOURCES (3)** Overview of the human resource profession, including emerging trends, professional roles and professional competencies. Prerequisite: Graduate standing in HRD or consent of instructor.

**HRD 602 LEADERSHIP THEORY AND PRACTICE (3)** Theoretical and applied foundation of leadership concepts, princi-

ples, practices and competencies; integration of theory and practice to apply various conceptual models of leadership to support management and leadership development within their organizations as well as create and implement their personal development plan. Prerequisite: Graduate standing in Human Resource Development Program or consent of the instructor.

**HRD 603 PROFESSIONAL DEVELOPMENT IN HRD (3)** Analysis and development of professional competencies, knowledge and attitudes according to roles of the human resource development specialist. The overall goal of the course is to help students develop and compile a professional portfolio that they can use for career advancement. Prerequisite: Completion of 18 credits in HRD course work or consent of instructor.

**HRD 604 COMPENSATION AND BENEFITS MANAGEMENT FOR THE HRD PROFESSIONAL (3)** This course is designed to acquaint the HRD professional with the fundamental concepts, issues and techniques associated with designing, managing and evaluating compensation and benefits programs so that the HRD professional can contribute more effectively to improving organizational performance. Prerequisite: Graduate standing in the Human Resource Development Program or consent of instructor.

**HRD 605 APPLIED RESEARCH IN HUMAN RESOURCE DEVELOPMENT (3)** Description, analysis and application of research methods for HRD professionals, studied in the context of key business and organizational decision-making processes. Prerequisite: Graduate standing in the Human Resource Development Program or consent of instructor.

**HRD 627 TRAINING AND DEVELOPMENT (3)** Study of current trends in training and human resource development applied to various types of organizational environments. Prerequisite: Graduate standing in the Human Resource Development Program or consent of instructor.

**HRD 629 PERSONNEL SELECTION (3)** Study of research and application of personnel planning, recruiting and selection practices within organizations. Prerequisite: Graduate standing in the Human Resource Development Program or consent of instructor.

**HRD 641 CHANGE IN THE WORKPLACE (3)** An interdisciplinary study of workplace changes. Topics to be covered are: international competition, work force demographics, information technology, changing nature of work and the learning organization. Prerequisites: For general track: HRD 601, or 627, or 642. For educational leadership track: HRD 642.

**HRD 642 ORGANIZATIONAL BEHAVIOR (3)** Theoretical and applied aspects of organizational behavior through the use of psychological concepts. Individual, group, technological and structural theory are examined in the context of organizational effectiveness. Prerequisite: Graduate standing in the Human Resource Development Program or consent of instructor.

**HRD 644 TEAM BUILDING (3)** Psychological and organizational aspects of group dynamics and work teams. Application of theory to actual terms in workplace. Prerequisite: Graduate standing in the Human Resource Development Program or consent of instructor.

**HRD 679 SPECIAL TOPICS IN HUMAN RESOURCE DEVELOPMENT (3)** Topics vary according to the instructor. May be repeated for a maximum of 9 credits. Prerequisite: Graduate standing in HRD program or consent of instructor.

**HRD 695 INDEPENDENT STUDY OR INTERNSHIP IN HRD (3)** Individual and supervised study or project development in selected areas of human resource development.

## HUMANITIES (HUMA)

**HUMA 601 WAR IN LITERATURE (3)** Examination of the paradox of western war and literature in the classical, medieval, Renaissance and modern periods. Prerequisite: Bachelor's degree.

**HUMA 602 LITERATURE OF EMPIRE (3)** Analysis of imperial literature in classical, medieval, Renaissance and modern times. Prerequisite: Bachelor's degree.

**HUMA 603 DISEASE, HEALTH AND HEALING IN WESTERN LITERATURE (3)** Changing literary representation of disease, the infirm, and the healer from ancient times to the present. Authors include Sophocles, Cicero, Rabelais, Dickens, Dostoevsky, Ibsen and Camus.

**HUMA 606 THE SYMPOSIUM (3)** Analysis of texts of the ancient, medieval, Renaissance and modern eras, which explore issues through fictionalized, civil conversation. Prerequisite: Bachelor's degree.

**HUMA 616 THE HUMAN (3)** Analysis of changing concepts on the nature of being human through a reading of classical, medieval, Renaissance and modern text. Prerequisite: Bachelor's degree.

**HUMA 631 HISTORY OF HISTORICAL THOUGHT (3)** Philosophies of history from ancient to modern. Prerequisite: Bachelor's degree.

**HUMA 632 VISIONS OF HISTORY AND OF HUMAN NATURE (3)** Visions and themes of history in ancient, medieval, Renaissance, and modern texts. Prerequisite: Bachelor's degree.

**HUMA 633 COMPARATIVE BIOGRAPHY: THE PURSUIT OF HUMAN PERFECTION (3)** How does the human life strive for perfection-whether spiritual, mili-

tary, political, aesthetic or intellectual, and how do historians strive to shape those human lives into perfect biographies. Text will include readings from the classical through the modern periods. Prerequisites: Bachelors degree.

**HUMA 701 RELIGIOUS CURRENTS IN AMERICAN LITERATURE (3)** Religious currents in American Literature from the 17th century to the present. Prerequisite: Undergraduate degree.

**HUMA 702 THE GOLDEN AGE OF ENGLISH SATIRE (3)** Study of English Satire of the 18th century in its intellectual, social and political contexts. Authors studied include Dryden, Swift, Pope, Fielding, Johnson and Austen.

**HUMA 750 MASTER AUTHORS (3)** Study of a classic author of history, fine arts, literature, philosophy, religion or rhetoric. May be repeated for a maximum of 6 credits. Prerequisite: Bachelor's degree.

**HUMA 751 MASTERWORKS SEMINAR (3)** Intensive study of a classic book of history, fine arts, literature, philosophy, politics, religion or rhetoric. May be repeated for a maximum of six credits. Prerequisites: Bachelor's degree.

**HUMA 897 THESIS (6)** Mentored and defended monograph in one of the following disciplines: art history, history, literature, philosophy, religion, or rhetoric. Prerequisites: Bachelor's degree, approval of director and successful proposal review.

**HUMA 898 THESIS (3)** The previous course taken over two semesters. Prerequisites: Bachelor's degree, approval of director and successful proposal review.

**HUMA 899 THESIS CONTINUUM (1)** Continuation of thesis beyond initial 6 credits. Prerequisites: HUMA 897 or 898 for 6 credits.



## **INTERDISCIPLINARY FINE ARTS (IDFA)**

**IDFA 601 ENHANCING READING THROUGH THE ARTS (3)** Arts experience to facilitate skills, comprehension, analysis and synthesis of text-based learning materials. Includes pre-reading skills, readiness activities, vocabulary building, critical analysis and creative writing. Prerequisite: Graduate standing.

**IDFA 602 ARTS ACROSS THE CURRICULUM (3)** This course will explore the interdisciplinary planning and teaching strategies integrating the arts (dance, music, theatre and visual arts) with academic subjects in the K-8 curriculum.

**IDFA 603 DRAMA IN THE CLASSROOM (3)** This course provides a practical and philosophical framework for integrating drama across the curriculum. Students will explore the history and significance of creative play and gain practical knowledge of many play structures. The course will also explore the Drama in Education model and relate dramatic principles to total learning. Students will design and implement arts-integrated lesson and unit plans and define philosophies for the arts-integrated teacher.

**IDFA 701 INTERDISCIPLINARY SEMINAR IN THE CONTEMPORARY ARTS (3)** An interdisciplinary graduate seminar in the contemporary arts; topics vary by semester. Prerequisite: Graduate-level standing or permission of the instructor.

## **INTERDISCIPLINARY HEALTH PROFESSIONS (IDHP)**

**IDHP 501 HIV/AIDS TESTING AND CONFIDENTIALITY IN THE 21ST CENTURY (3)** Explores societal factors, resources, policies, health care delivery, legal/ethical issues and counseling. Students will be prepared for Maryland State Certification as HIV testing counselors. Prerequisites:

HLTH 101 or NURS 406, PSYC 101, SOCI 101 and one of the following: BIOL 213, BIOL 215, HLTH 207 or NURS 204 or consent of instructor.

**IDHP 600 TRANSITIONS: HEALTH CARE PROFESSIONALS IN A CHANGING ENVIRONMENT (3)** Introductory course in CAT program, focused primarily on context and stakeholders of health delivery system, along with leadership and teamwork.

**IDHP 602 CLINICAL PROGRAM PLANNING, IMPLEMENTATION AND EVALUATION (3)** Planning clinical programs for health care environments and business planning. Course includes practical skill development in the design of a program proposal, including elements of reimbursement and regulatory requirements. Students will apply tracking systems to evaluate program effectiveness.

**IDHP 605 MANAGING HEALTH CARE PROFESSIONALS (3)** This course provides an overview of issues and skills involved in effectively managing the health professional. The course will focus on the application of the entire range of supervisory skills and personnel management practices to the tasks of administering a health care operation. Also listed as OCTH 605.

**IDHP 610 ADMINISTRATION OF HEALTH CARE ORGANIZATIONS (3)** Capstone course in the interdisciplinary Clinician to Administrator Transition (CAT) certificate program. Integration and application of knowledge and skills related to program planning, financial management and management of human resources. Prerequisite: Completion of the first five courses in the CAT program.

**IDHP 647 HEALTH CARE FINANCIAL MANAGEMENT (3)** Examination of financial aspects of health care, including accounting and budgeting. Aspects of production, distribution and organization

and health services are reviewed from financial and economic perspectives. Also listed as HLTH 647.

**IDHP 651 PLANNING AND MARKETING HEALTH IN BUSINESS AND INDUSTRY (3)** Health promotion and delivery in the profit and not-for-profit sectors. Concepts and application of planning and marketing health in various settings. Also listed as HLTH 651.

**IDHP 705 CULTURE AND HEALTH (3)** Provides a theoretical framework for culture and health. Students will analyze cultural understandings on healthcare and synthesize this knowledge for application into their professional practice.

**IDHP 712 ADULT LEARNER (3)** Introduction to learning in adulthood, including context, development, process and practice. Prerequisite: Consent of instructor.

**IDHP 741 ETHICAL AND LEGAL ISSUES IN CLINICAL PRACTICE (3)** Provides an interdisciplinary exploration of legal and ethical issues in clinical practice, research, administration and teaching. It includes emphases on cultural diversity, truth-telling, informed consent, confidentiality, accountability, reimbursement pressures, new technologies and treatments, end-of-life care, licensure concerns, practice in varied settings and organizational ethics. Prerequisite: Admission into the graduate school.

## **INSTRUCTIONAL TECHNOLOGY (ISTC)**

**ISTC 501 INTEGRATING INSTRUCTIONAL TECHNOLOGY (3)** Materials, devices, techniques and settings are presented in an overview of the field of instructional technology.

**ISTC 541 FOUNDATIONS OF INSTRUCTIONAL TECHNOLOGY (3)** This intro-

ductory course provides an overview of the field of instructional technology. This course focuses on helping students to develop an awareness and understanding of the theories and philosophies driving the field. In addition, this course will explore common computer-related technologies used within most learning environments. Prerequisite: Acceptance into the Graduate School.

**ISTC 553 INSTRUCTIONAL PHOTOGRAPHY (3)** This course explores the use of film-based and digital-based photography for education and training. The application of visual theory principles, review of basic photographic techniques, photo editing in a digital environment and instructional design competencies will be emphasized.

**ISTC 601 SCHOOL LIBRARY MEDIA ADMINISTRATION (3)** The evaluation, planning, and policy development for the school library media center. Prerequisites: Graduate standing and completion of all level one and two school library media courses.

**ISTC 605 WEB-BASED INSTRUCTION IN EDUCATION (3)** Principles of Web-based instruction in creating learning environments. Pedagogical, technological, organizational, institutional and ethical issues related to design, development and delivery. Prerequisite: ISTC 541 or equivalent.

**ISTC 615 COLLECTION DEVELOPMENT (3)** Concepts, processes, guidelines and resources for the development of a high quality school library media center collection. Prerequisite: Graduate standing.

**ISTC 633 INSTRUCTIONAL VIDEO (3)** This course explores the design and production of video for education training. The emphasis on the instructional systems design process is supported by laboratory tasks that lead students through the process of producing instructional video. Computer-based editing is used. Prerequisite: Bachelor's degree.

**ISTC 635 THEORY AND DESIGN OF COMPUTER-BASED INSTRUCTION (3)**

This advanced course investigates several theoretical strategies appropriate to the development of CBI. A variety of educational and training environments are explored in the context of the Instructional Systems Design process. A laboratory task enables students to use the more complex functions of an authoring system. Prerequisite: ISTC 687.

**ISTC 651 INFORMATION LITERACY AND ACCESS (3)**

Access and evaluation of information sources relevant to school library media centers. Prerequisites: Graduate standing and completion of level one school library media courses.

**ISTC 653 THE ORGANIZATION OF KNOWLEDGE (3)**

The organization of knowledge in all formats including cataloging, subject analysis and bibliographic control. Prerequisite: Graduate standing.

**ISTC 655 MEDIA DESIGN AND PRODUCTION (3)**

This course gives an introduction and overview to digital media (multimedia) in instructional settings. A laboratory task enables students to develop original media, gather and edit digital media assets, integrate their products into a computer presentation program and output their results in a variety of digital and analog media formats.

**ISTC 663 APPLIED PSYCHOLOGY OF LEARNING (3)**

Behaviorist, cognitivist and constructivist learning theories are discussed. Emphasis is on the application of those theories to instruction. Prerequisite: ISTC 541 or equivalent.

**ISTC 667 INSTRUCTIONAL DEVELOPMENT (3)**

Overview and application of the instruction systems approach for problem solving and the design of instruction. Media selection, needs assessment, prototyping, implementation and evaluation of instructional systems.

**ISTC 671 ADVANCED REFERENCE (3)**

Bibliographic research for the retrieval of information using manual and automated information delivery system techniques. Prerequisite: ISTC 471 or equivalent.

**ISTC 673 INSTRUCTIONAL FACILITIES DESIGN (3)**

A systems approach to the integration of media and facilities into a unit to fulfill instructional training goals. Time and sequential phasing relationships. Prerequisite: Three ISTC courses above the 500 level.

**ISTC 674-679 SPECIAL TOPICS IN INSTRUCTIONAL TECHNOLOGIES (3-6)**

Topics selected from the instructional technology field which are innovative and of immediate concern to existing instructional needs. Prerequisite: Bachelor's degree; may be repeated to a maximum of 6 credits with no topic repeated.

**ISTC 685 RESEARCH IN INSTRUCTIONAL TECHNOLOGY (3)**

Students write a research proposal and concentrate on elements of a research study, inferential statistics and research in the field of instructional technology. Prerequisite: 12 credits of ISTC courses at 600-700 level.

**ISTC 687 COMPUTER-BASED INSTRUCTION (3)**

The relationship between programmed instruction and computer-assisted instruction is examined. Students are required to demonstrate competencies in the design and production of computer-assisted instruction. Prerequisite: ISTC 541 or equivalent.

**ISTC 690 DATABASE APPLICATIONS FOR SCHOOL LIBRARY MEDIA CENTERS (3)**

Theories and applications of educational information system development, including database design and implementation and basis of graphical-user-interface (GUI) programming, with emphasis upon database applications for school library systems and administrative management. Prerequisite: ISTC 541/441 or ISTC 301/501 or equivalent.

**ISTC 691 DIRECTED READINGS IN IN-**

**STRUCTIONAL TECHNOLOGY (3)** Independent readings and research in selected areas of instructional technology. Prerequisite: Consent of chairperson.

**ISTC 695 INDEPENDENT STUDY IN INSTRUCTIONAL TECHNOLOGY (3)** Individual and supervised study of research problems and special projects in specific areas of instructional technology. Prerequisite: Consent of chairperson or instructor.

**ISTC 700 ASSESSMENT IN INSTRUCTIONAL TECHNOLOGY (3)** Contemporary theories and methodologies of assessment in instructional technology, including terminology and concepts, measurement principles and assessment instruments, with emphasis upon assessment of technology learning, technology integration, technology attitudes, performance, educational software designs and management of technology resource. Prerequisites: ISTC 685, ISTC 667.

**ISTC 702 EDUCATIONAL LEADERSHIP AND TECHNOLOGY (3)** Explores current research and theory related to technology policy, planning and leadership in education settings. Focus will include development of technology plans at the school district and state levels. Prerequisite: ISTC 301/501 or ISTC 541.

**ISTC 705 ADVANCED WEB APPLICATIONS IN EDUCATION (3)** This course includes contemporary theories, methodologies and advanced techniques of using Web applications in the field of education and related disciplines. Course covers application of using scripting language to produce dynamic Web pages for educational purposes. Current Web design software and graphing tools will be used. An online learning environment using course management tools will be developed. Prerequisites: ISTC 605, ISTC 635.

**ISTC 707 LEARNING ENVIRONMENTS IN A DIGITAL AGE (3)** Contemporary learning theory will be used to design and

evaluate interactive learning environments that reflect the qualities of active, constructive, collaborative, intentional, complex, contextual, conversational and reflective learning.

**ISTC 709 LEGAL AND ETHICAL ISSUES IN INSTRUCTIONAL TECHNOLOGY (3)** Legal, ethical and intellectual property issues related to the use of technology in education. Analysis of case studies related to technology use policies for education and human resource organizations. Prerequisite: Successful completion of 15 credits of graduate courses in instructional technology or education.

**ISTC 711 INNOVATION, CHANGE & ORGANIZATIONAL STRUCTURES (3)** Study of the interconnected and diverse forces of technological innovation that impact learning organizations and the change process. Prerequisites: Successful completion of 15 semester credits of graduate courses in ISTC or Education.

**ISTC 717 DISTANCE EDUCATION IN THEORY AND PRACTICE (3)** Relevant concepts and issues in distance education including theoretical foundations, existing institutions and concepts and current practice.

**ISTC 718 CRITICAL PERSPECTIVES OF TECHNOLOGY IN EDUCATION (3)** A reflective view of the moral, historical, social, and political views of technology in education. Students will examine technology's impact on the discipline of teaching as well as technology's broader impact on society. The content to be covered by this course will not overlap with any other courses currently offered by the College of Education. Prerequisites: 40 program credits toward the Instructional Technology Doctoral degree.

**ISTC 741 RESEARCH FOUNDATIONS OF INSTRUCTIONAL TECHNOLOGY (3)** This seminar course will focus on examining philosophies and discourse upon which the field of instructional technology is built. This course will examine historical research,

organizational and governmental standards, alternative and critical theories, and paradigms and philosophies of learning, design and technology. Prerequisite: Acceptance into the Graduate School.

**ISTC 767 ADVANCED THEORY AND INSTRUCTIONAL DESIGN (3)** This course is designed to extend the student's understanding of instructional design to include advanced models, non-linear models, advanced assessment and evaluation techniques, and to provide a glimpse of instructional design in the years to come. A comprehensive course project will be completed using such techniques and theories. This course does not overlap with any existing course. Prerequisites: ISTC 667 or equivalent; Admission to the EdD program in Instructional Technology or permission of course instructor.

**ISTC 789 PRACTICUM AND PORTFOLIO IN SCHOOL LIBRARY MEDIA (3-6)** Students serve under the supervision of a school library media center director. Students present graduate portfolios to level one students and faculty in school library media. Prerequisite: Completion of all level one and level two school library media courses.

**ISTC 797 GRADUATE INTERNSHIP IN INSTRUCTIONAL TECHNOLOGY (3)** Project under the direction of a faculty adviser. The course may be taken twice for credit. Prerequisites: 12 credits of ISTC courses at 600-700 level and consent of program director.

**ISTC 897 MASTER'S THESIS IN INSTRUCTIONAL TECHNOLOGY (6)** An original investigation, using research method and design, of a research problem. Credit granted after thesis accepted. Prerequisite: Consent of chairperson.

**ISTC 898 THESIS (3)** The previous course, ISTC 897, taken over two consecutive semesters.

**ISTC 899 THESIS CONTINUUM (1)**

## KINESIOLOGY (KNES)

**KNES 505 BEHAVIOR MANAGEMENT TECHNIQUES IN THE CLASSROOM (3)** Causes of misbehavior in pre-school, elementary and secondary schools. Crisis prevention. Preventive, supportive and directive strategies and their practical application. Class rules, reinforcers, assessment and legal issues. Prerequisites: Psyc 201 or equivalent.

**KNES 509 STRESS MANAGEMENT, TENSION CONTROL AND HUMAN PERFORMANCE (3)** Presents information about the manifestation of stress and systematic programs for tension control. The correlates surrounding progressive muscle relaxation and biofeedback are explored in detail as well as the neurological responses which produce tension responses. Lectures are combined with laboratory experiences in an effort to understand and practice relaxation techniques. Prerequisite: One psychology and/or biological sciences course.

**KNES 523 ADAPTIVE PHYSICAL EDUCATION (3)** Recognition of pupils with physical deviations and use of special or modified physical education activities. Prerequisites: PHEC 311 and BIOL 213/214.

**KNES 526 MOTOR DEVELOPMENT: INFANTS TO ADULTS (3)** Researching of literature in motor development and performance of the individual from infancy through adulthood. Impact of motor development on cognitive, affective and psychomotor development. Prerequisite: PSYC 201.

**KNES 555 PHYSICAL ACTIVITY PROGRAMMING FOR THE OLDER ADULT (3)** Application of physiological, psychological, sociological and motor learning principles to the development, professional and personal skills related to fitness assessment, exercise prescription, physical activity program planning and implementation. Prerequisite: PSYC 203 or consent of instructor.

**KNES 570-579 SELECTED TOPICS IN PHYSICAL EDUCATION (1-3)** Workshop designed for study of special topics of current interest in physical education and athletics. Content varies and will focus on substantive material or operational problems. May be repeated for a maximum of 6 credits. Prerequisite: Consent of workshop director and/or graduate program director.

**KNES 594 TRAVEL STUDY (3)** Study of selected physical education programs, practices or facilities. Study group will be accompanied by a TU kinesiology department faculty member. Prerequisite: As specified in course outline and consent of instructor.

**KNES 596 INDEPENDENT STUDY (1-3)** Course is designed to permit students to take courses which they cannot arrange within the regular semester schedule. All work will be under the direct supervision of an assigned faculty member. No more than 3 credits may be earned in independent study unless permission of the department chairperson is obtained.

**KNES 611 SPORT PSYCHOLOGY (3)** A data-based analysis of the behavioral consequences and antecedents of the sport experience. Investigation of current research in the field with attention to the research process. Experience with a research experiment in either a laboratory or field setting. Prerequisite: 6 credits of upper-division PHEC courses or consent of instructor.

**KNES 670-672 SELECTED TOPICS IN PHYSICAL EDUCATION (1-3)** Course will focus on an in-depth study of selected topics in sport and physical education. Content will vary and will focus on current research and/or relevant sport and physical education concerns. The specific requirements will vary with each topic. Prerequisite: Approval by the graduate program director.

**KNES 685 RESEARCH SEMINAR (3)** Research on a problem through consultation with designated faculty members. Prerequisite:

sites: EDUC 691, undergraduate degree in physical education and consent of graduate program director.

**KNES 687 INTERNSHIP IN PHYSICAL EDUCATION (3)** Supervised field experience appropriate to student's interests and background in selected school, business, agency or professional settings. Prerequisites: Minimum of 9 credits completed in graduate program, with a 3.00 G.P.A. and/or consent of department chairperson.

**KNES 696 INDEPENDENT STUDY IN PHYSICAL EDUCATION (3)** Supervised study of research problems and special projects in specified areas of physical education. Prerequisites: KNES 639 or KNES 641 and consent of graduate program director.

**KNES 697 DIRECTED READING IN PHYSICAL EDUCATION (3)** Extensive reading in selected areas of physical education. Prerequisites: KNES 639 or KNES 641 and consent of graduate program director.

## **LIBERAL AND PROFESSIONAL STUDIES**

**LBPS 601 APPROACHES TO GRADUATE RESEARCH (3)** Introduction to academic research paradigms and their relation to critical issues in professional practice and communication. Must be taken with the first 9 credits of degree work. Prerequisite: Admission to Liberal and Professional Studies program.

**LBPS 602 CULMINATING SEMINAR IN LIBERAL AND PROFESSIONAL STUDIES (3)** Development, implementation and documentation of a culminating project for students enrolled in the Liberal and Professional Studies graduate program. Must be taken during last semester of degree work. Prerequisite: Admission to Liberal and Professional Studies program.

**LBPS 695 INDEPENDENT STUDY IN LIBERAL AND PROFESSIONAL STUDIES (3)**

Independent study under direction of graduate faculty member in area related to student's course of study. May be repeated for a maximum of 6 credits. Prerequisites: Admission to graduate program, LBPS 601 and approval by graduate program director.

**MANAGEMENT (MNGT)****MNGT 561 TOTAL QUALITY MANAGEMENT (3)**

Philosophy, principles and applications of TQM in business. Prerequisites: MNGT 363 and MNGT 365 or graduate standing.

**MNGT 601 ADMINISTRATIVE THEORY AND PRACTICE (3)**

Development of a framework for understanding and managing for organizational effectiveness, including the traditional areas of planning, organizing, staffing, directing and controlling. Other topics include organizational behavior theory, alternate methods for decision making and current management issues. This course is designed for students with no undergraduate exposure to management course work. Prerequisite: Graduate standing.

**MNGT 602 CONFLICT RESOLUTION IN COMMERCE AND INDUSTRY (3)**

An exploration of the causes of conflict and various approaches to its resolution. Conflict at the interpersonal level as well as the organizational level is examined. The focus is on avoiding litigation and using alternative methods used in common disputes in a variety of industries. Prerequisite: MNGT 601 and admission to a graduate degree program.

**MNGT 603 HUMAN RESOURCE MANAGEMENT IN A GLOBAL ECONOMY (3)**

Issues in managing human resources in companies operating both domestically and globally including functions required by law and the marketplace. Prerequisite: Admission to a graduate degree program.

**MNGT 604 LABOR RELATIONS (3)**

The dynamics of labor and management relations, with emphasis on the significance of dealing with unions and the realities of the constraints that industrial relations place on the managerial decision-making process. Topics include the development and recognition of union and collective bargaining and its impact on wages, hours, working conditions, employee relations and health safety. Current problems and issues are addressed. Prerequisites: MNGT 603 or MNGT 381 and graduate standing.

**MNGT 605 DECISION SUPPORT SYSTEMS (3)**

Systems view of decision making. Concepts of artificial intelligence as applied to decision making, e.g. knowledge, human problem-solving, knowledge engineering, reasoning and recognition, and uncertainty. Concepts of problem-solving models and model management. Concepts of idea management for group decision support. Prerequisite: Course(s) and/or work experience in information systems.

**MNGT 607 INFORMATION SYSTEMS MANAGEMENT (3)**

Information resource requirements and strategies of businesses including information objective and design aspects, computer-based systems, telecommunications and data networks, systems analysis and design, artificial intelligence and decision support systems. Prerequisite: Graduate standing.

**MNGT 608 PROJECT MANAGEMENT (3)**

Project-management concepts, economic analysis and multiple-criteria evaluation methods. Organizational and work structure, technology structure, scheduling, budget, resource management and control. Computer support and software projects. Prerequisite: Undergraduate courses in quantitative techniques.

**MNGT 609 BUSINESS AND SOCIETY (3)**

An integrated view of the interrelationships between managing responsibility in a complex environment and stakeholders (the

firm's many publics); corporate social performance; values and ethics in management, including a process of moral reasoning for managers; business-government relations; crisis management and managing corporate social performance. Prerequisite: Graduate standing.

**MNGT 610 QUANTITATIVE METHODS IN DECISION MAKING** (3) Advanced quantitative techniques for solving management decision problems. Optimal and heuristic solution strategies for static and dynamic problems. Emphasis on computer applications and decision making. Prerequisite: Admission to graduate program.

**MNGT 611 ORGANIZATIONS IN A VIRTUAL WORLD** (3) Effects of virtual environments on organizational operations. Participants create Web-based business plans for either new organizations or for existing organizations expanding into a new market. Prerequisite: Graduate standing.

**MNGT 612 MULTINATIONAL MANAGEMENT OF INFORMATION TECHNOLOGY** (3) Information systems for multinational and international technologies. Strategic dimensions and international competition. Systems development strategies. Managing international information. Prerequisite: Admission to graduate program in Information Technology or Computer Science.

**MNGT 613 APPLIED MANAGEMENT STATISTICS** (3) To provide students with an overview of the applications of statistical analysis to business decision making. Students will be exposed to statistical models, data warehousing, data mining and data models. Prerequisite: 3 credits of statistics.

**MNGT 614 SYSTEMS ENGINEERING MANAGEMENT** (3) Systems engineering process and design requirements, methods, tools, planning, organization, review and evaluation. Contracting for systems engi-

neering and supplier management. Prerequisite: Admission to graduate program in Information Technology or Computer Science.

**MNGT 615 STRATEGIC MANAGEMENT** (3) Course focuses on analyzing and developing corporate strategy and plans, both short- and long-term. Case studies and research in real-world business situations involving multinational organizations are emphasized. Prerequisite: Graduate standing.

**MNGT 616 INFORMATION SYSTEMS APPLICATIONS** (3) Course is designed to provide students with the opportunity to undertake field study projects or obtain professional certification. Prerequisite: Admission to graduate program.

**MNGT 670-679 SPECIAL TOPICS IN MANAGEMENT** (3) Contemporary business issues as they affect management practice. Content varies with each topic. Prerequisite: Consent of instructor.

**MNGT 695 INDEPENDENT STUDY IN MANAGEMENT** (3) Comprehensive paper on special topic in human resource management, organizational behavior or management. Prerequisites: 6 graduate credits in business and consent of instructor.

## MARKETING (MKTG)

**MKTG 602 CONSUMER BEHAVIOR** (3) Analyzing the buyer decision-making process, and the influences upon it made by external and specific situational factors. Prerequisite: Admission to a graduate degree program or consent of the instructor.

**MKTG 603 MARKETING ADMINISTRATION** (3) The fundamental aspects of marketing functions, theory and strategy, including analysis of marketing opportunities; marketing research and forecasting; market segmentation; consumer motivation; product planning, price and distribution; sales force



management and the role of marketing within the firm and society. Prerequisite: Graduate standing.

**MKTG 604 GLOBAL MARKETING (3)** Understanding international and global factors that impact marketing strategy and implementation. Prerequisite: Admission to a graduate degree program or consent of the instructor.

**MKTG 605 STRATEGIC MARKETING MANAGEMENT (3)** Management of an organization's marketing activities and their strategic ramifications. Prerequisite: Admission to a graduate degree program or consent of the instructor.

**MKTG 607 MARKETING RESEARCH (3)** Research methodology and the strategic implications of research. Prerequisite: Graduate standing.

**MKTG 609 ADVERTISING MANAGEMENT (3)** Management of an organization's promotional strategies, including advertising research and advertising campaign development. Prerequisite: Graduate standing.

## **MASS COMMUNICATION (MCOM)**

**MCOM 502 LITERARY JOURNALISM (3)** Literary techniques and dramatic structure for print and online journalistic media. Prerequisite: MCOM 356.

**MCOM 507 WRITING FOR NEW MEDIA (3)** Research and create multimedia news and feature articles incorporating hypertext and graphics and photographic, audio and video elements. Prerequisites: MCOM 356, MCOM 357 or MCOM 381 and consent of instructor.

**MCOM 533 MEDIA ETHICS (3)** Ethical principles, issues, dilemmas in mass communication; professional codes; interpersonal, small group, organizational and societal fac-

tors affecting mediated communication. Prerequisite: Junior, senior or graduate student standing.

**MCOM 547 ADVERTISING CAMPAIGNS (3)** Application of advertising principles and practices to the development of campaigns and the preparation of plan books. Prerequisite: MCOM 325.

**MCOM 550 PUBLIC OPINION AND THE PRESS (3)** Journalistic aspects of public opinion and propaganda; the impact of mass communication media on the formation of public opinion. Techniques of polling and testing public opinion.

**MCOM 551 PUBLIC RELATIONS FOR NONPROFIT ORGANIZATIONS (3)** Fundraising and developing, implementing and evaluating public relations campaigns for nonprofit organizations. Practical experience in lab sessions. Prerequisite: MCOM 357.

**MCOM 553 STRATEGIC PUBLIC RELATIONS AND INTEGRATED COMMUNICATIONS CAMPAIGNS (3)** Research, planning, implementing and evaluating programs and campaigns.

**MCOM 559 PROFESSIONAL ISSUES IN STRATEGIC PUBLIC RELATIONS AND INTEGRATED COMMUNICATIONS (3)** Technical, managerial, legal, ethical and accreditation issues and concerns.

**MCOM 560 INTERNSHIP IN MASS COMMUNICATION (1-3)** Under faculty and Career Center supervision, students work as intern with a professional in the field of mass communication. May be repeated for a maximum of 9 credits, but only 6 credits will apply to the major. S/U grading. Prerequisites: Junior/senior standing, cumulative QPA of 2.75 and 3.00 in the major, completion of appropriate courses determined by the department. Please check with Career Center for specifics.

**MCOM 572 INTERNATIONAL ADVERTISING** (3) Role of advertising and promotion programs in the world marketplace, consideration of global and local perspectives, key decisions in agency operations, creative aspects and media. Prerequisite: MCOM 360.

**MCOM 601 MEDIA WRITING** (3) Study of and practice in media-writing techniques. Emphasis on style, structure, content and purpose. Prerequisite: MCOM 255, or MCOM 356, or undergraduate degree in mass communication.

**MCOM 603 CRITICISM IN MASS MEDIA** (3) Critical analysis of film and television with focus upon cultural, commercial and aesthetic values that affect these media. Prerequisite: MCOM 352, or MCOM 385 or equivalent.

**MCOM 605 THEORY OF PUBLIC RELATIONS AND ORGANIZATIONAL COMMUNICATION** (3) First in a sequence of two courses that examine the body of knowledge in public relations, with an emphasis on the strategic management of communications, including administrative theory, case studies and field investigations. Web supported (50% or more online).

**MCOM 606 PRACTICE OF PUBLIC RELATIONS AND ORGANIZATIONAL COMMUNICATION** (3) Second in sequence of two courses that examine the body of knowledge in public relations, with a focus on the strategic management of communication, including marketing, case studies and field investigations. Web supported (50% or more online). Prerequisites: MCOM 605, MNGT 601, which may be taken concurrently.

**MCOM 613 FREELANCE FEATURE WRITING** (3) Process of freelance writing for the print media. Prerequisite: MCOM 601 (may not be taken by those who have had WRIT 713).

**MCOM 615 ADMINISTRATIVE AND PROFESSIONAL COMMUNICATION** (3) Practices and problems within business and corporations, with emphasis on management-employee effectiveness, conflict management and resolution and business communication formats. Prerequisite: MCOM 315 or equivalent.

**MCOM 617 INTERNATIONAL COMMUNICATION** (3) Media systems of the world compared relative to their political, cultural, sociological, economic, religious, historical and broadcasting and print structures. In-depth analysis of American global media efforts. Prerequisite: MCOM 255 or instructor's consent.

**MCOM 621 MASS MEDIA LAW AND REGULATIONS** (3) Legal limits on freedom of the press, Constitutional guarantees, libel, contempt, obscenity, privacy, ethical problems and the right to know. Origins and concepts of freedom of information and its evolution in Constitutional law and judicial decisions: contemporary problems of censorship in publishing, broadcasting and film.

**MCOM 625 WRITING FOR THE VISUAL MEDIA** (3) Scriptwriting for film, television and related media. Prerequisite: MCOM 601.

**MCOM 631 RESEARCH METHODS IN MASS COMMUNICATION** (3) Development of quantitative and qualitative communication research designs. Prerequisite: PSYC 212, or Math 231 or equivalent.

**MCOM 633 THEORIES IN MASS COMMUNICATION** (3) Understanding the communicator, message, channel, audience and effects as components of mass communication. Prerequisite: MCOM 411.

**MCOM 635 JOURNALISM ETHICS** (3) Study of historical and contemporary ethical practices of American journalism. Prerequisite: MCOM 385 or equivalent.

**MCOM 651 MEDIA AND POLITICS (3)** Relationships between the mass media and the political system. The influence of the media on political careers, the adversarial and support roles of the media. Prerequisite: MCOM 352, or MCOM 385 or equivalent.

**MCOM 670-673 SPECIAL TOPICS IN MASS COMMUNICATION (3)** Exploration of current media topics. Prerequisite: Varies with each topic.

**MCOM 680 SEMINAR IN MEDIA MANAGEMENT: ELECTRONIC MEDIA MANAGEMENT AND OPERATIONS (3)** Functions, advertising, network and labor relations, internal organizational structure and operational procedures of broadcast management. Philosophies and theories of management, programming, audience research, budgeting and accounting principles, sales and regulatory functions. Prerequisite: MCOM 140, MCOM 265, or MCOM 271 or equivalent.

**MCOM 682 ISSUES MANAGEMENT (3)** Analysis of strategies used by organizations debating public policy. Prerequisites: MCOM 601 and MCOM 615.

**MCOM 685 MANAGING STRATEGIC PUBLIC RELATIONS AND INTEGRATED COMMUNICATIONS CAMPAIGNS (3)** Best practices in presenting, managing, planning, implementing and evaluating campaigns. Prerequisites: MCOM 605, MNGT 601, MCOM 606 and MKTG 603.

**MCOM 686 SEMINAR IN MEDIA PRODUCTION: TELEVISION (3)** Aesthetic and technical aspects of multi-camera television studio production: camera operation and techniques, lighting and audio technical direction and producing. Prerequisite: MCOM 271.

**MCOM 687 SEMINAR IN MEDIA PRODUCTION: NEWSPAPERS (3)** Newspaper production and its relationship to other aspects of its operation. Traditional and new

newspaper technology. Prerequisite: MCOM 601.

**MCOM 688 SEMINAR IN MEDIA PRODUCTION: FILM (3)** The examination of advanced 16mm filmmaking practice in both pre-production and post-production leading to the completion of a professional quality 16mm release print. Individual cost to the student will be determined by the selected student project. Prerequisite: MCOM 367 or equivalent.

**MCOM 701 MEDIA INTERRELATIONSHIPS (3)** Examination of the interactions among the mass media, including message-media systems. Prerequisite: MCOM 601.

**MCOM 715 SPECIALIZED REPORTING (3)** Developing expertise in the reporting of news in specific fields: e.g., urban affairs, science, the arts. Prerequisite: MCOM 601.

**MCOM 717 INTERNATIONAL FILM AND TELEVISION (3)** Examination of economic, social, aesthetic and technological policies and issues. Current historical examples will be used. Prerequisite: MCOM 617.

**MCOM 781 INTERNSHIP IN JOURNALISM (3)** Supervised work in a professional journalistic setting. Prerequisites: MCOM 601; 6 additional MCOM graduate credits and consent of instructor.

**MCOM 783 INTERNSHIP IN PUBLIC RELATIONS (3)** Supervised work in a professional public relations setting. Opportunity to relate theory and practice. Prerequisites: MCOM 685 or equivalent; 6 additional MCOM graduate credits and consent of instructor.

**MCOM 785 INTERNSHIP IN FILM (3)** Supervised work experience within a professional filmmaking environment, exposing student to film production and scheduling. Prerequisites: MCOM 688 or equivalent; 6 additional MCOM graduate credits and consent of instructor.

**MCOM 787 INTERNSHIP IN ELECTRONIC MEDIA (3)** Supervised work in a professional electronic media setting. Prerequisites: MCOM 686 or equivalent; 6 additional MCOM graduate credits and consent of instructor.

**MCOM 795 INDEPENDENT STUDY IN MASS COMMUNICATION (3)** Directed study in production or research in selected areas through readings, projects, papers and/or seminars. May be repeated for a maximum of 6 credits. Prerequisites: 15 credits of graduate-level mass communication and/or communication studies courses, and consent of instructor.

**MCOM 880 GRADUATE PROJECT IN MASS COMMUNICATION (3-6)** Individual preparation and presentation of a project that applies theories and techniques in mass communication. Project must be approved, monitored and evaluated by a graduate faculty committee. Prerequisites: Completion of all core requirements, advancement to candidacy, and consent of instructor.

**MCOM 885 PROJECT CONTINUATION (1)** Continuation of graduate project. Prerequisite: Previous registration for project work.

**MCOM 897 THESIS (3)** A carefully executed and accurate recording of a specific topic in mass communication. An acceptable research methodology must be used. Includes an outline of the proposed thesis submitted for approval to graduate adviser. Prerequisites: The student must be advanced to degree candidacy and have completed all of the required core courses.

**MCOM 898 THESIS (3)** Completion of work started with previous course, MCOM 897, including a successful defense before a faculty committee.

**MCOM 899 THESIS CONTINUUM (1)**

## MATHEMATICS (MATH)

**MATH 363 MATHEMATICAL STRUCTURES FOR COMPUTER SCIENCE (4)** This course covers basic mathematical concepts utilized in computer science: proof techniques, propositional and predicate logic, elements of combinatorics, discrete probability, basic number theory, sequences and series, elements of the theory of computation. Prerequisites: Permit required from computer science; restricted to COSC graduate students.

**MATH 501 HISTORY OF MATHEMATICS (3)** Development of mathematics emphasizing mathematical concepts and contributions of individuals and societies. Prerequisites: MATH 263 and MATH 274.

**MATH 521 APPLICATIONS OF MATHEMATICS FOR SECONDARY SCHOOL TEACHERS (3)** The course examines a series of applications of mathematics that may be used to enrich the secondary mathematics curriculum. Prerequisite: Teaching experience in mathematics or science, or consent of instructor.

**MATH 525 METHODS AND MATERIALS FOR MATH LAB INSTRUCTION (1-3)** Examination of, and experiences with, commercial and teacher-made materials designed for a laboratory (activity-centered) approach to learning mathematics. Prerequisite: A methods course in teaching mathematics (MATH 321, 323, 423) or previous teaching experience.

**MATH 527 READINGS IN MATHEMATICS EDUCATION FOR THE ELEMENTARY SCHOOL TEACHER (1-3)** Directed study for the teacher of elementary school mathematics. Prerequisites: MATH 321 or MATH 323 and approval of instructor.

**MATH 529 READINGS IN MATHEMATICS EDUCATION FOR THE SECONDARY SCHOOL TEACHER (1-3)** Di-

rected study for the teacher of secondary school mathematics. Prerequisite: Consent of instructor.

**MATH 531 PROBABILITY (4)** Probability in sample spaces, discrete and continuous random variables, distribution theory. Tchebyshev's theorem, central limit theorem, expected values and moments. Prerequisite: MATH 274.

**MATH 532 MATHEMATICAL STATISTICS (4)** Sample theory and distributions, point estimation, confidence intervals, tests of hypotheses, regression, correlation and analysis of variance. Prerequisite: MATH 331.

**MATH 533 APPLIED REGRESSION AND CORRELATION ANALYSIS (3)** Relationships among variables emphasizing linear regression with one or more independent variables, methods of estimating parameters and testing hypotheses, selection of independent variables and other topics. Prerequisite: One course in elementary statistics.

**MATH 534 NONPARAMETRIC STATISTICAL METHODS (3)** Applied study of popular nonparametric tests, procedures utilizing data from a single sample and two or more independent and related samples; Chi-square tests of independence, homogeneity and goodness-of-fit; rank correlation and other measures of association. Prerequisite: One course in elementary statistics.

**MATH 535 NUMERICAL ANALYSIS I (3)** Error analysis, interpolation, numerical differentiation and integration, numerical solution of algebraic equations and of systems of algebraic equations. Prerequisites: MATH 265, MATH 274 and COSC 236.

**MATH 536 NUMERICAL ANALYSIS II (3)** Numerical solution of differential equations. Least square and its applications, linear programming and extension of the concepts of MATH 435. Prerequisite: MATH 435 (offered only in the spring semester of the academic year).

**MATH 537 OPERATIONS RESEARCH (4)** Introduction to linear and integer programming; the simplex method and duality theory; dynamical formulation of deterministic decision-process problems, applications to problems of equipment replacement, resource allocation and scheduling; Poisson and birth and death processes. Markovian queues. Prerequisites: MATH 265 and MATH 331.

**MATH 538 LIFE CONTINGENCIES I (3)** Theory and applications of contingency mathematics in the areas of life and health insurance, annuities and pensions from both the probabilistic and deterministic approaches. Prerequisite: MATH 331.

**MATH 543 APPLIED ANALYSIS OF VARIANCE (3)** Single and multifactor models, inference for factor level means, multiple comparison methods for factor level means, test of additivity, test of homogeneity, regression approach to analysis of variance. Prerequisite: MATH 333.

**MATH 545 SAMPLING TECHNIQUES (3)** Simple random, stratified, systematic, cluster and double sampling. Sampling for proportions, averages and totals and sample size determination. Prerequisite: One course in elementary statistics.

**MATH 546 STATISTICAL METHODS IN QUALITY CONTROL (3)** Statistical process control including principles of control charts, control charts for attributes and variables and special control charts; methods for quality improvement. Acceptance sampling including single, double, multiple and sequential attribute sampling and acceptance sampling by variable. Prerequisite: One course in elementary statistics.

**MATH 551 GRAPH THEORY (3)** Hamiltonian and Eulerian graphs, coloring graphs, planar and non-planar graphs, connectivity problems and isomorphic graphs and advanced topics. Prerequisite: MATH 265 or MATH 267.

**MATH 557 DIFFERENTIAL GEOMETRY**

(3) Curvatures of curves and surfaces in  $E_3$ , geodesics, invariants, mappings and special surfaces. Prerequisites: MATH 275 Calculus III and MATH 265 Eled. Linear Algebra.

**MATH 563 LINEAR ALGEBRA (3)**

Vector spaces over arbitrary fields, linear transformations, eigenvalues, eigenvectors, inner products, bilinear forms, direct sum decompositions and the Jordian form. Prerequisites: MATH 265 and MATH 267.

**MATH 565 THEORY OF NUMBERS (4)**

Theory of prime numbers, the division algorithm, the fundamental theorem of arithmetic, polynomials, congruences, number theoretic functions. Prerequisite: MATH 261 or MATH 263.

**MATH 568 ALGEBRAIC STRUCTURES**

(4) Groups, rings, fields, integral domains and polynomial rings. Prerequisites: MATH 265 and MATH 267.

**MATH 574 DIFFERENTIAL EQUATIONS**

(3) Theory and application of linear ordinary differential equations. Solutions of nonlinear ordinary differential equations of the first order. Prerequisite: MATH 274.

**MATH 575 MATHEMATICAL MODELS**

(3) Consideration of some mathematical problems in sociology, psychology, economics, management science and ecology, and developing appropriate mathematical models and techniques to solve them.

**MATH 576 INTRODUCTORY REAL ANALYSIS (4)**

Introduction to mathematical analysis. Sequence series, continuity, differentiation, integration and uniform convergence. Prerequisites: MATH 267 and MATH 275.

**MATH 577 COMPLEX ANALYSIS (4)**

Complex number system, analytic functions, Cauchy's integral theorem and integral formula, Taylor and Laurent series, isolated singularities, Cauchy's residue theorem and

conformal mappings. Prerequisite: MATH 275.

**MATH 578 TOPOLOGY (3)**

Basic concepts of pointset topology, separation axioms, compact and connected spaces, product and quotient spaces, convergence, continuity and homeomorphisms. Prerequisites: MATH 267 and MATH 275.

**MATH 579 ADVANCED CALCULUS (3)**

Vector, integral and differential calculus including the divergence and Stoke's theorems. Fourier series, orthogonal functions and applications. Prerequisite: MATH 275.

**MATH 580-589 SELECTED TOPICS IN MATHEMATICS AND STATISTICS (1-4)**

Topics will be chosen from different areas in mathematics and statistics. Content will be determined so as to complement course offerings, as well as the needs and desires of the students. (MATH 480 through MATH 483 may not be counted toward a Mathematics major). Students may not accumulate more than 9 credits in Selected Topics. Prerequisite will vary from topic to topic.

**MATH 591 READINGS IN MATHEMATICS (1-3)**

Independent readings in selected areas of mathematics. Prerequisite: Consent of instructor. May be repeated for a maximum of 6 credits.

**MATH 602 CULTURAL AND PHILOSOPHICAL BACKGROUND OF MATHEMATICS (3)**

Meanings and origins of mathematical concepts, schools of philosophical thought, cultural and ethnomathematical context of mathematics, philosophy and purpose of mathematics education, current issues in mathematics and mathematics education, role of the mathematics teacher in current debates. Prerequisite: Admission to master's in Mathematics Education program.

**MATH 621 SEMINAR IN TEACHING ELEMENTARY/MIDDLE SCHOOL MATHEMATICS (3)**

Analysis of techniques and materials in elementary and middle school

mathematics instruction and assessment. Student may not receive credit for both MATH 621 and MATH 422 except by special permission from the graduate program director and the chairperson of the mathematics department. Prerequisites: A grade of C or better in each of MATH 204 (or MATH 206), MATH 205 (or MATH 207), and MATH 251.

**MATH 625 SEMINAR IN MATHEMATICS EDUCATION FOR SECONDARY SCHOOL TEACHERS (3)** Investigations of recent curricula and research, pedagogy, materials, technology and assessment techniques for middle and high school teachers of mathematics. Prerequisite: MATH 423 or equivalent.

**MATH 626 TECHNOLOGY IN SCHOOL MATHEMATICS TEACHING AND LEARNING (3)** History and use of technology in teaching mathematics in grades 6 through 12. Students will use scientific and graphing calculators, computers and other devices such as the Calculator-Based Laboratory (CBL) to solve problems found in secondary mathematics curriculum and apply this knowledge in the teaching of mathematical concepts. Software such as Mathematica, MathCad and Geometer's Sketchpad will be studied and students will write lessons using one of these software packages. The use of the Internet and other technological resources to teach mathematics will also be studied. Prerequisite: Admission to the graduate program.

**MATH 627 CURRICULUM ISSUES IN SECONDARY SCHOOL MATHEMATICS (3)** Analyze secondary school mathematics curriculum development from a historical perspective and discuss past influences on current methodology. Distinguish current curriculum trends and design alternatives. Evaluate contemporary curriculum by assessing an existing text or program. Create a selected mathematics unit. Prerequisite: Math 625.

**MATH 628 REAL ANALYSIS FOR TEACHERS (3)** Principles underlying calculus, including topics in real analysis such as completeness for the reals, limits, continuity, differentiation/integration, sequences and series. Emphasis on mathematical theory and the pedagogy of teaching functions, precalculus and calculus in the secondary school. Prerequisites: Admission to the master's program in Mathematics Education (or approval of department), Math 273-274 or equivalent.

**MATH 630 STATISTICS - AN INTEGRATED APPROACH (4)** Theory and practices of basic statistical analysis and inference with emphasis on analyzing and solving real problems using statistics. Descriptive statistics, introduction to probability, sampling distributions, estimation, hypotheses testing, regression, correlation, nonparametric techniques and analysis of variance, and computer programming incorporated throughout. Prior knowledge of programming is not necessary. Prerequisite: MATH 274 (not open to students who have completed MATH 332).

**MATH 631 TOPICS IN PROBABILITY (3)** Review of basic probability theory, types of convergence and limit theorems, elementary stochastic processes. Markov chains, birth and death processes. Gaussian processes. Examples from engineering, physical and social sciences, management and statistics. Prerequisite: MATH 331.

**MATH 632 COMPUTATIONAL STOCHASTIC MODELING (3)** Computing expectations and probabilities by conditioning. Markov chains: classification of states, limiting probabilities, gambler's ruin problems, algorithmic efficiency, branching process, time-variable Markov chains, continuous-time Markov chains, birth and death processes, Kolmogorov differential equations, uninformization. Renewal theory and its applications. Prerequisite: MATH 331, MATH 531, or consent of chairperson.

**MATH 633 QUEUING SYSTEMS (3)** Characterization and analysis of basic queuing systems, both single-server and multiple-server. The M/G/1 and G/M/m queuing systems. Multiserver with queuing, multiserver queuing rules, priority queues. Networks of queues: response time, routing, flow and congestion control. Manufacturing systems: capacity/inventory investment and scheduling. Prerequisites: MATH 331, MATH 531, or consent of chairperson.

**MATH 634 COMPUTATIONAL SPECTRAL ANALYSIS AND TIME SERIES (3)** Random processes, single and double exponential smoothing forecast methods, autoregressive moving average models, maximum likelihood estimation, minimum variance spectral estimation, maximum entropy, periodogram analysis. Computation of spectral estimates; the fast Fourier transform, Yule-Walker equations, Prony's method. Kalman and adaptive filtering. Mathematica or a similar software package will be used. Prerequisites: MATH 265 and MATH 332, or MATH 532, or consent of chairperson.

**MATH 635 APPLIED NUMERICAL ANALYSIS (3)** Approximating functions, numerical solution of ordinary differential equations, numerical solution of partial differential equations, selected topics in numerical linear algebra such as orthogonal factorizations and least-square problems, singular value decomposition and pseudo-inverse, the Q-R algorithm of Francis for the eigenvalue problem. Mathematica or a similar software package will be used. Prerequisites: MATH 374 or MATH 574, and MATH 435 or MATH 535, or consent of chairperson.

**MATH 636 LINEAR AND NONLINEAR PROGRAMMING (3)** Formulations and model building in linear and nonlinear programming. The simplex method and its variants. Duality theory. Sensitivity analysis, parametric programming, convergence (theoretical and practical). Polynomial time algorithms. Optimality conditions for nonlinear

optimization problems. Prerequisites: MATH 265, MATH 275 and graduate standing, or consent of chairperson.

**MATH 637 ADVANCED TOPICS IN APPLIED OPERATIONS RESEARCH (3)** Dynamic programming, formulation of deterministic decision-process problems, analytic and computational methods of solution, application to problems of equipment replacement, resource allocation, scheduling, search and routing. Brief introduction to decision making under risk and uncertainty. Prerequisites: MATH 275 and MATH 331, or MATH 531, or consent of chairperson.

**MATH 651 MATHEMATICS OF FUZZY LOGIC (3)** Basic concepts of fuzzy logic, fuzzy sets, fuzzy uncertainty, fuzzy relations, comparing fuzzy logic with first-order predicate logic, algebra of fuzzy logic, approximate reasoning, rule-based systems. Description of linguistic data using fuzzy sets. Applications: rule-based expert systems, decision making, pattern recognition, control theory, optimization. Prerequisite: Graduate standing or consent of chairperson.

**MATH 653 TOPICS IN GEOMETRY (3)** Axiomatic development of Euclidean, elliptic and hyperbolic geometries; the study of the analytic plane, the sphere and the Poincare model as models for these axiomatic systems. Not open to students who have had MATH 353. Prerequisites: MATH 274 and MATH 467 (or MATH 568).

**MATH 667 ALGEBRA OF SYMMETRIES (3)** Complex integers, permutation groups, properties of abstract groups of plane transformations and matrix representations of transformations. Culminates in developing the 17 groups of symmetries of the Euclidean plane. No credit toward the master's in Applied and Industrial Mathematics. Prerequisite: Admission to the Master of Science in Mathematics Education Program or approval of the department



**MATH 671 CHAOTIC DYNAMICS AND FRACTAL GEOMETRY (3)** Introduction to the classical theory of linear systems and the modern theory of nonlinear and chaotic systems. Modeling of discrete and continuous time systems. Bifurcation theory, symbolic dynamics, fractals and complex dynamics, Julia sets and the Mandelbrot set. Mathematica or an equivalent software package will be used. Prerequisites: MATH 265 and MATH 275, and graduate standing or consent of chairperson.

**MATH 673 APPLIED INDUSTRIAL MATHEMATICS I (3)** Formulation and solution of mathematical problems for systems from engineering, economics, physics and the social sciences. Integral equations: theory, solutions and approximations. Integral transforms and their applications: Fourier, Mellin, Hankel, Hilbert, Radon and the z-transforms. Unitary transforms and their applications. Prerequisites: MATH 265 and MATH 374, or MATH 574; and MATH 379 or MATH 579; and MATH 475 or MATH 577; or consent of chairperson.

**MATH 674 APPLIED INDUSTRIAL MATHEMATICS II (3)** A continuation of MATH 673. Topics include: calculus of variations, introduction to partial differential equations, asymptotic expansions, introduction to the wavelet transforms and their numerical treatment. Mathematica or a similar software package will be used in the numerical approximation of the problems investigated. Prerequisite: MATH 673.

**MATH 677 ADVANCED MATHEMATICAL MODELING (3)** Development of appropriate stochastic as well as deterministic models to solve applied mathematical problems in the fields of physics, engineering, and the social sciences. Topics include optimization models, dynamic models, probability models and Monte Carlo simulation. Mathematica or a similar software package will be used. Prerequisites: MATH 331 or MATH 531, and MATH 379 or MATH 579, or consent of chairperson.

**MATH 684-689 SELECTED TOPICS IN MATHEMATICS AND STATISTICS (1-4)** Topics will be chosen in mathematics or statistics. Course content will be determined so as to complement course offerings in mathematics and statistics. Course may be repeated for a maximum of 8 credits. Prerequisite: Will vary depending on topic.

**MATH 695 INDEPENDENT STUDY IN MATHEMATICS (1-3)** Directed independent study in selected areas of graduate level mathematics. Prerequisite: Permission of instructor and graduate adviser.

**MATH 791-792 MASTER'S INTERNSHIP (3)** An original investigation of a problem to be pursued in cooperation with a local industry or business under the direction of an industry supervisor and a member of the mathematics faculty. Prerequisites: Completion of at least 15 credits toward the M.S. degree in Applied and Industrial Mathematics and consent of chairperson.

**MATH 897 MASTER'S THESIS IN MATHEMATICS EDUCATION (6)** An original investigation using an acceptable research method and design conducted under the direction of one or more faculty members. Prerequisite: Department consent.

**MATH 898 THESIS (3)** The previous course, MATH 897, taken over two consecutive semesters.

**MATH 899 THESIS CONTINUUM (1)**

## **MATH EDUCATION (MTED)**

**MTED 605 MIDDLE SCHOOL MATHEMATICAL METHODS AND PROBLEM SOLVING (3)** Best practices for delivery and assessment of mathematical concepts and skills relevant to the middle school level of instruction. Topics include problem solving, geometry and measurement, number sense, data analysis and probability, and algebra. Cannot be used for any other graduate program in the mathematics department. Prerequisite:

Admission to the Master's Program in Mathematics Education or approval of the department.

**MTED 611 ALGEBRA FOR MIDDLE SCHOOL TEACHERS (3)** An intensive understanding of the middle and high school algebra and the best practices for delivery and assessment of algebra for middle school instruction. Topics include divisibility and factorization, factorization, functions, equations and inequalities. Cannot be used for any other program in the mathematics department. Prerequisite: Admission to the Master's Program in Mathematics Education or approval of the department.

**MTED 612 DATA ANALYSIS FOR MIDDLE SCHOOL TEACHERS (3)** Topics from statistics and probability, and recent methodologies and standards for data analysis in middle school level. The course also offers activities using Fathom-a computer learning environment for data analysis and statistics. Cannot be used for any other graduate program in the mathematics department. Prerequisite: Admission to the Master's Program in Mathematics Education or approval of the department.

**MTED 613 MATHEMATICAL MODELING FOR MIDDLE SCHOOL TEACHERS (3)** The prerequisite topics needed in order to learn Calculus. Topics include the behavior functions, fitting functions to data, sequences, and modeling. The appropriate use of handheld technologies is stressed throughout the course. Internet resources for students to access outside of class have been included. Prerequisite: Admission to the Master's Program in Mathematics Education or approval of the department.

**MTED 614 CALCULUS THROUGH TECHNOLOGY FOR MIDDLE SCHOOL TEACHERS (3)** Intuitive calculus of one variable, modeling best practices. Topics include limits, differentiation, integration and application of calculus. Graphing calculators and other computer learning environments such as Mathematica are included. Cannot be used for any other graduate program in the Mathematics Department. Prerequisite: MTED 613,

Mathematical Modeling for Middle School Teachers, or approval of the department.

**MTED 615 GEOMETRY FOR MIDDLE SCHOOL TEACHERS (3)** Geometric vocabulary, relationships, concepts and skills in two and three dimensions; topics include a review of Euclidean Geometry, coordinate and transformations geometries, tessellation, polyhedra, measurement, and the use of appropriate technology in the classroom. Cannot be used for any other graduate program in mathematics department. Prerequisite: Admission to the Master's Program in Mathematics Education or approval of the department.

## **MUSIC (MUSC) - HISTORY/ LITERATURE, THEORY, COMPOSITION, SPECIAL TOPICS**

**MUSC 502 MUSIC OF THE BAROQUE PERIOD (3)** Study of the development of music style, forms and compositional techniques during the period from 1600 to about 1750. Prerequisite: MUSC 232 or consent of instructor.

**MUSC 503 MUSIC OF THE CLASSICAL PERIOD (3)** Styles, forms and techniques of the period from 1750-1820. Particular emphasis is placed on such instrumental categories as the string quartet, sonata, symphony and concerto as illustrated in the works of Haydn, Mozart and Beethoven. Attention is given to operatic and sacred compositions of the same masters. Prerequisite: MUSC 232 or consent of instructor.

**MUSC 504 MUSIC OF THE ROMANTIC PERIOD (3)** Musical styles, forms and techniques in the 19th century with special attention to the intellectual foundations of the Romantic movement. Prerequisite: MUSC 232 or consent of instructor.

**MUSC 505 CONTEMPORARY MUSIC (3)** Styles, forms and musical techniques since 1900. Prerequisite: MUSC 302 or consent of instructor.

**MUSC 506 SURVEY OF SOLO VOICE LITERATURE (3)** A musical survey of the art song from circa 1750 to the present. Prerequisite: MUSC 232 or consent of instructor.

**MUSC 509 HISTORY AND LITERATURE OF GUITAR, LUTE AND VIHUELA (3)** A survey of the history and literature written for or readily adaptable to the guitar. Includes study of tablatures and transcriptions to modern notation. Prerequisite: MUSC 232 or consent of instructor.

**MUSC 511 SURVEY OF OPERA (3)** Study of opera literature of various periods and styles. Prerequisite: Junior or senior standing or consent of instructor.

**MUSC 513 SYMPHONIC LITERATURE (3)** Survey of orchestral music from the Classical Era to the present. Includes symphony, overture and symphonic poem. Prerequisite: MUSC 232 or consent of instructor.

**MUSC 514 COUNTERPOINT (3)** Principles of species counterpoint, using examples from all style periods and writing of counterpoint in all five species. Prerequisite: Completion of music theory sequence or graduate standing.

**MUSC 519 KEYBOARD LITERATURE (3)** The study of literature for keyboard instruments from 1450 to the present. Prerequisite: Upper-division or graduate standing as a Music major, or permission of instructor.

**MUSC 521 AMERICAN MUSIC (3)** American music from the Colonial Period to the present. Prerequisite: Junior/senior standing or consent of instructor.

**MUSC 525 JAZZ REPERTOIRE (3)** Study and performance of standard jazz literature for small, varied instrumental groups or vocalists. Prerequisite: MUSC 232 or consent of instructor.

**MUSC 526 JAZZ HISTORY (3)** Survey of jazz from its origins to the present day. Prerequisite: MUSC 232.

**MUSC 527-528 JAZZ ARRANGING I, II (3, 3)** Study and practice of arranging of standard material for jazz ensembles. Prerequisite: MUSC 232 or consent of instructor.

**MUSC 531 ADVANCED CHORAL AND INSTRUMENTAL ARRANGING (3)** Advanced arranging techniques including the scoring of original and other works for various combinations of instruments and/or voices. Prerequisite: MUSC 335, or equivalent, or consent of instructor.

**MUSC 537 ADVANCED COMPUTER APPLICATIONS IN MUSIC (3)** Creative use of computer applications: sequencing, notation, synthesis applications, digital audio recording, editing, synchronization with film/video. Prerequisite: MUSC 135.

**MUSC 542 VOCAL PEDAGOGY (3)** Theory and practice of the teaching of singing by national styles, historical approaches and the physiology of the voice. Prerequisites: MUSC 245 and MUSC 246, or consent of instructor.

**MUSC 543 INSTRUMENTAL PEDAGOGY (1)** The art and Science of teaching musical instruments in the applied setting.

**MUSC 560 PIANO PEDAGOGY (3)** Teach the goals and steps in the art of teaching beginner, elementary and intermediate piano.

**MUSC 562 GUITAR PEDAGOGY (3)** Art and science of teaching guitar, historical and current practices, and observations. Private studio organization and administration. Prerequisite: 200-level guitar private lessons or consent of instructor.

**MUSC 571-579 SPECIAL TOPICS IN MUSIC (3)** Consideration of central topic in music with different topic each semester. May be repeated for credit provided a different topic is covered. Prerequisite: MUSC 232 or consent of instructor.

**MUSC 582 RECORDING TECHNIQUES II (3)** Emphasizes signal processing equipment and how it relates to live recording

from the concert stage. Includes experience recording live concerts in the Center for the Arts Concert Hall. Prerequisites: MUSC 281 and consent of the instructor.

**MUSC 593 INDEPENDENT RESEARCH IN MUSIC (1-3)** Supervised research in a selected topic in music culminating in an extended paper. May be repeated for credit. Prerequisite: MUSC 302 or consent of instructor.

**MUSC 597 INTERNSHIP IN MUSIC (1-6)** Field experience with working professionals. Prerequisite: Consent of music internship coordinator. S/U grading.

**MUSC 621 PERSPECTIVES IN MUSIC HISTORY (3)** An examination of important issues in the history of Western music, focusing on the philosophies of music historians, the evolution of pertinent genres and forms, the social background to musical practice and recent developments in musical scholarship. Prerequisite: Admission to master's program in Music.

**MUSC 629 CONCEPTS OF MUSIC THEORY (3)** The theoretical and analytical principles of tonal music. Emphasis on writing and listening skills. Prerequisite: Graduate standing.

**MUSC 631 ADVANCED THEORY (3)** Continued development of skills in more advanced melodic, harmonic and rhythmic aspects of music through hearing, playing and writing. Prerequisite: MUSC 232.

**MUSC 670-679 SPECIAL TOPICS IN MUSIC (3)** In-depth study of a selected topic in music. Specific requirements and prerequisites will vary with each topic and will be designated by the department each time a topic is scheduled. Approval by the graduate adviser is required. Each topic may be taken as a separate course.

**MUSC 671 SPECIAL TOPICS IN MUSIC LITERATURE (3)** Consideration of a central

topic of music literature with a different topic selected each semester. May be reelected. Prerequisites: MUSC 232 and consent of instructor.

**MUSC 685 MUSIC BIBLIOGRAPHY AND RESEARCH (3)** Investigation of music bibliography, research methodology and the writing process. Independent research projects and experience in writing research papers, reviews and essays in musical criticism.

**MUSC 797 GRADUATE RECITAL (1)** Recital performance for Master of Music graduation requirement. Prerequisites: A minimum of 24 credits completed toward the degree and permission of the graduate program director. Special permit required.

**MUSC 880 GRADUATE PROJECT IN MUSIC (1)** Fulfills a graduation requirement for Master of Science in Music Education. Projects include recital, composition, research paper or practicum as appropriate to the needs and interest of the student. Prerequisites: A minimum of 21 graduate credits completed and permission of the graduate program director in Music Education. Special permit required.

**MUSC 885 PROJECT CONTINUATION (1)** Continuation of graduate project. Prerequisite: Previous registration for project work.

**MUSC 897 MASTER'S THESIS IN MUSIC (6)**

**MUSC 898 THESIS (3)** The previous course, MUSC 897, taken over two consecutive semesters.

**MUSC 899 THESIS CONTINUUM (1)**

## MUSIC APPLIED (MUSA) - ENSEMBLES (1)

The study and performance of literature for the designated ensemble. Open to all students by audition or permission of instructor. May be repeated for credit depending on concentration.

### Vocal Ensembles

- MUSA 650 Choral Society (no audition required)
- MUSA 651 Chorale
- MUSA 652 Chamber Singers
- MUSA 653 Music for the Stage
- MUSA 654 Music Theater Chorus
- MUSA 668 Early Music Ensemble
- MUSC 684 Jazz Vocal Ensemble

### Large Instrumental Ensembles

- MUSA 660 Marching Band (no audition required)
- MUSA 661 Symphonic Band
- MUSA 662 Orchestra
- MUSA 663 Opera Orchestra
- MUSA 664 Music Theater Orchestra
- MUSA 665 Wind Ensemble

### Small Instrumental Ensembles

- MUSA 659 Pep Band
- MUSA 666 Woodwind Ensemble
- MUSA 667 Chamber Music Ensemble
- MUSA 668 Early Music Ensemble
- MUSA 669 Brass Ensemble
- MUSA 671 Clarinet Choir
- MUSA 672 Percussion Ensemble
- MUSA 673 Saxophone Ensemble
- MUSA 674 Solo and Ensemble Accompanying
- MUSA 675 Guitar Ensemble

### Jazz Ensembles

- MUSA 681 Jazz Ensemble - Big Band
- MUSA 682 Jazz Ensemble - Combo
- MUSA 683 Jazz Ensemble - Guitar
- MUSA 684 Jazz Ensemble - Voice
- MUSA 685 Jazz Ensemble - Latin

## MUSIC APPLIED (MUSA) - PRIVATE LESSONS (1-3)

Private studio and master class instruction in instrumental techniques and performance. The Music Department Applied Music Handbook lists criteria for audition and performance standards. Successful completion of a jury examination is required at the end of each semester. May be repeated for credit depending on concentration. Prerequisites: Audition and permission of the graduate program director. Special permit only.

Note: Additional fees apply. Contact the department for fee policy, 410-704-2836.

### Composition

- MUSA 600 Composition

### Vocal

- MUSA 603 Voice

### Keyboard

- MUSA 605 Piano
- MUSA 606 Organ
- MUSA 607 Harpsichord

### Percussion

- MUSA 610 Snare Drum
- MUSA 611 Mallets
- MUSA 612 Timpani
- MUSA 613 Multiple Percussion

### Brass

- MUSA 620 Trumpet
- MUSA 621 Trombone
- MUSA 622 French Horn
- MUSA 623 Tuba

### Woodwinds

- MUSA 625 Flute
- MUSA 626 Clarinet
- MUSA 627 Oboe
- MUSA 628 Bassoon
- MUSA 629 Saxophone

### Strings

- MUSA 630 Violin
- MUSA 631 Viola
- MUSA 632 Cello

## 230 COURSE DESCRIPTIONS

MUSA 633 String Bass

MUSA 634 Harp

### Guitar

MUSA 635 Classical Guitar

MUSA 636 Other Fretted Instruments

### Jazz/Commercial

MUSA 640 Jazz/Commercial Guitar

MUSA 641 Jazz/Commercial String Bass

MUSA 642 Jazz/Commercial Piano

MUSA 643 Jazz/Commercial Drums

MUSA 644 Jazz/Commercial Trumpet

MUSA 645 Jazz/Commercial  
Saxophone

MUSA 646 Jazz/Commercial Trombone

MUSA 647 Jazz/Commercial  
Electric Bass

MUSA 648 Jazz/Commercial Voice

## MUSIC EDUCATION (MUED)

### MUED 601 CURRENT TRENDS IN MUSIC AND MUSIC EDUCATION (3)

Current philosophies and objectives of music scope and sequence of music curricula (vocal and instrumental) in the schools. Prerequisite: Consent of program director.

### MUED 603 MUSIC IN SPECIAL EDUCATION (3)

Musical curriculum materials and activities addressing the needs of handicapped students in school settings. Teacher skill development in adapting lesson plans, developing Individual Education Programs and program implementation. Prerequisite: MUED 307, MUED 309 or permission of chairperson.

### MUED 605 SEMINAR IN COMMUNITY MUSIC (3)

Exploration of the teaching and performance of music in diverse settings: community music schools, retirement communities, preschool/home school settings, workplace performance groups, intergenerational settings and community-based ensembles. Includes philosophy, pedagogy and practical issues such as funding, as well as aspects of adult and intergenerational learning. Prerequisite: Bachelor's degree in Music or Music Education.

### MUED 617 CHORAL WORKSHOP IN ELEMENTARY AND SECONDARY SCHOOL MUSIC (2)

Observing, conducting and evaluating of rehearsals of the chorus made up of workshop participants. Includes sources and selection of music, audition and classification of voices, pedagogy, rehearsal techniques, choral arranging and program building and programming. Prerequisite: MUSC 327.

### MUED 630 DALCROZE-ORFF-KODALY FOR THE CLASSROOM I (2)

Principles of Dalcroze eurhythmics, Orff and Kodaly techniques in elementary and middle school programs. Appropriate for vocal-general and instrumental teachers. Prerequisite: Bachelor's degree in Music or Music Education.

### MUED 631 DALCROZE-ORFF-KODALY FOR THE CLASSROOM II (2)

Principles of beginning and intermediate level Dalcroze, Orff and Kodaly techniques in the vocal-general and instrumental music program exploring practical techniques and materials using an eclectic approach to teaching concepts and skills. Prerequisite: MUED 630 or consent of instructor.

### MUED 632 DALCROZE PRACTICES (2)

Methods and materials incorporating eurhythmics, solfege, improvisation and basic keyboard improvisatory skills. Prerequisite: MUED 630 or consent of instructor.

### MUED 633 ORFF TECHNIQUES (2)

Methods and materials incorporating improvisation, orchestration, mallet technique, speech chants, movement and use of Orff instruments. Prerequisite: MUED 630 or consent of instructor.

### MUED 634 KODALY TECHNIQUES (2)

Methods and materials incorporating sight singing exercises, rhythm and movement, folk songs and singing games within an eclectic curriculum. Prerequisite: MUED 630 or consent of instructor.

### MUED 635 THEORY, PEDAGOGY AND CURRICULUM DEVELOPMENT IN

**DALCROZE, ORFF, KODALY (3)** Teaching the pedagogy of musical elements and concepts using Dalcroze, Orff and Kodaly techniques and materials. Prerequisites: MUED 631, MUED 632 and MUED 633, MUED 634, or consent of instructor.

**MUED 639 ADVANCED WORKSHOP IN ELEMENTARY AND MIDDLE SCHOOL GENERAL MUSIC (2)** Observation, development and evaluation of current materials and methodology in elementary and middle school general music. Prerequisite: MUED 307, MUED 309 or equivalent.

**MUED 661 SEMINAR IN INSTRUMENTAL MUSIC (3)** Comparative analysis of current methods and materials used in schools and colleges. Instrumental conducting and repertoire. Construction of acoustical properties and basic techniques of instruments. Problems of ensemble and balance. Intonation, precision and interpretation are studied. Materials and music literature for bands, orchestras and small ensembles are evaluated. Prerequisite: Admission to graduate program.

**MUED 662 SEMINAR IN CHORAL (VOCAL) MUSIC (3)** Comparative analysis of current methods and materials used in schools and colleges. Choral conducting and repertoire. Style interpretation, tone quality, diction, rehearsal and conducting techniques are analyzed. Prerequisite: Consent of program director.

**MUED 670-684 WORKSHOPS IN MUSIC EDUCATION (1-3)** Selected topics in music education. Can be repeated for credit when topics differ. Prerequisite: Graduate standing.

**MUED 695 RESEARCH METHODS IN MUSIC EDUCATION (3)** The application of research to problems in the field of music education. Prerequisites: Admission to the graduate program in Music Education and consent of instructor.

## **NURSING (NURS)**

**NURS 510 SPIRITUALITY, HEALTH AND NURSING PRACTICE (3)** Application of theory and research to spiritual care of diverse client populations across the life span, and development of spiritual self-care plan of the provider. Prerequisites: One clinical course in nursing; RN status; or consent of the instructor.

**NURS 523 CRISIS AND STRESS MANAGEMENT (3)** An integrated, comprehensive, multicomponent approach to crisis intervention in a variety of individuals, groups and settings. Prerequisite: PSYC 101 or HLTH 101.

**NURS 543 PHARMACOTHERAPEUTIC AGENTS (2)** Pharmacologic agents commonly used in treatment of disease states and the nursing responsibilities involved. Prerequisites: Admission to the Nursing Major: NURS 331 and NURS 341 (can be taken concurrently).

**NURS 594 TRAVEL STUDY IN NURSING (3)** Historical and contemporary sociopolitical factors that guide the delivery of health care to various population groups in other countries. Prerequisite: Permission of the instructor.

**NURS 601 THEORETICAL FOUNDATIONS OF NURSING PRACTICE (3)** Prepares nurses to critically analyze and apply a wide range of nursing and related theories to research and clinical practice in order to develop a comprehensive and holistic approach to care. Prerequisite: Consent of instructor.

**NURS 603 NURSING RESEARCH (3)** Prepares the nurse to identify clinical problems, critically evaluate nursing research, develop a research design, and apply research in practice. Prerequisites: Undergraduate research and/or statistics course and consent of instructor.

**NURS 605 NURSING SYSTEMS IN HEALTH CARE (3)** Prepares the nurse to participate in the design, implementation and management of care in a variety of health care systems, provide quality cost-effective care, and assume a leadership role in the managing of human, fiscal, and physical health care resources. Prerequisite: Consent of instructor.

**NURS 610 CURRICULUM DEVELOPMENT IN NURSING (3)** Overview of theory and methods for the development of nursing educational delivery systems in academic and service settings.

**NURS 612 TEACHING AND LEARNING IN NURSING (3)** Focuses on the application of learning theory and teaching methods in the classroom and clinical environments with a particular emphasis on meeting the needs of diverse student populations. Includes instructional technology and micro-teaching experiences.

**NURS 700 COMMUNITY-BASED NURSING (3)** Focuses on application of epidemiological frameworks and concepts in health promotion, environmental health and disease prevention with diverse groups across the life span. Emphasis will be placed on the nursing care of at-risk and vulnerable populations in community-based settings. Prerequisites: IDHP 600, NURS 601.

**NURS 710 EVALUATION IN NURSING EDUCATION (3)** Emphasis is placed on the evaluation of student performance, teaching, courses and programs. Assessment measures of learner outcomes, faculty effectiveness and program quality will be explored. Prerequisites: NURS 712, NURS 610, NURS 612 (may be taken concurrently).

**NURS 712 ADULT LEARNER (3)** Introduction to learning in adulthood, including context, development, process and practice. Prerequisite: Consent of instructor.

**NURS 800 ADVANCED COMMUNITY-BASED NURSING PRACTICE (3-6)** A clin-

ical practicum designed to enhance the nurse's previous learning and experiences while fostering the development of new nursing knowledge and skills in community-based settings with diverse populations. Includes a weekly seminar. Prerequisite: NURS 700.

**NURS 801 CLINICAL PRACTICUM IN COMMUNITY BASED NURSING (3)** This course is designed to develop expertise as a community based nurse clinician. Prerequisite: NURS 800

**NURS 810 TEACHING PRACTICUM (3)** A practicum designed to apply new knowledge and skills in teaching and learning in academic or service settings. Self-assessment of teaching, discussion of the nurse educator role, and exploration of issues related to the teaching-learning environment will occur in weekly seminars. Prerequisites: NURS 612, NURS 710 (may be taken concurrently).

**NURS 812 SEMINAR IN COMMUNITY BASED NURSING (3)** Application of knowledge from core courses and those courses selected by the student to support individual goals while making a transition to a role as and advanced community based nursing practice clinician. Prerequisites: NURS 800, NURS (812 and 801) may be taken concurrently.

**NURS 897 THESIS (6)** Independent research under the guidance of faculty using established methods of research appropriate to nursing practice, education or administration. Prerequisite: NURS 800

## OCCUPATIONAL SCIENCE (OSC)

**OSC 742 ORIGINS AND EVOLUTION OF OCCUPATIONAL SCIENCE (3)** Examination of the history of occupation and occupational performance constructs. Prerequisite: OCTH 611.

**OSC 744 OCCUPATION AND HUMAN LIFE (3)** Examination of conceptual models and research that apply occupation based in-



interventions to individual and family practice. Prerequisite: Consent of instructor.

**OSC 746 OCCUPATIONS AND QUALITY OF LIFE IN COMMUNITIES AND SYSTEMS (3)** An examination of community health and quality of life from an occupational science perspective. Prerequisite: Permission of instructor.

**OSC 890 QUALITATIVE RESEARCH: OCCUPATION AND LIFE NARRATIVE (3)** Qualitative methods used in the study of occupation and other related social sciences. Prerequisite: OCTH 611, OCTH 613, or consent of instructor.

## **OCCUPATIONAL THERAPY (OCTH)**

**OCTH 536 OCCUPATIONAL THERAPY INTERNSHIP II (6)** Culminating fieldwork experience (470 hrs.) in delivery and management with differing populations and service delivery models. Prerequisites: OCTH 435 and consent of the department; permit required.

**OCTH 570-579 SPECIAL TOPICS IN OCCUPATIONAL THERAPY (1-3)** Designed to explore topics of special interest in the theory and practice of occupational therapy. Prerequisite: Consent of instructor. May be repeated for a maximum of 3 credits.

**OCTH 603 ISSUES IN OCCUPATIONAL THERAPY (3)** Analysis of current issues in occupational therapy. Prerequisite: Admission to Occupational Therapy master's program.

**OCTH 604 ACADEMIC AND CLINICAL EDUCATION (3)** College/university teaching and clinical supervision strategies for the preparation of professionals in clinical disciplines. Prerequisite: Consent of instructor.

**OCTH 605 MANAGING HUMAN RESOURCES IN OCCUPATIONAL THERAPY (3)** Issues and trends: in leadership, decision-making styles, productivity, professional

development recruitment and retention, and performance appraisal systems. Prerequisite: Consent of instructor.

**OCTH 611 ADVANCED THEORY AND PHILOSOPHY OF OCCUPATION (3)** Analysis of the theories and philosophical assumptions underlying occupation. Prerequisite: Consent of instructor.

**OCTH 612 O.T. HEALTH PROMOTION INITIATIVES IN THE COMMUNITY (3)** Theory and practice of occupational therapy in health promotion in the community with special emphasis on the cultural context of the community. Integrates knowledge and skills for the practice of occupational therapy services, which fosters healthy development; prevent health problems; maintain optimal function; and develop occupational performance skills of individuals, families, and communities. Prerequisite: OCTH 611 or permission of instructor.

**OCTH 613 ADVANCED RESEARCH METHODS IN OCCUPATION-BASED PRACTICE (3)** Application of qualitative and quantitative research methods. Prerequisite: Consent of instructor.

**OCTH 621 GERIATRIC REHABILITATION (3)** Older adult assessment and rehabilitation within a variety of health care systems. Prerequisite: Consent of instructor.

**OCTH 623 EVALUATION IN PEDIATRIC OCCUPATIONAL THERAPY (3)** Theory and practice of evaluation in the area of pediatric occupational therapy. Prerequisite: Consent of instructor.

**OCTH 628 CONTEMPORARY OCCUPATIONAL THERAPY PRACTICE (3)** This course combines classroom preparation with a directed independent study focused on expanding and developing skills in an area of occupational therapy practice of special interest to the student. Prerequisite: Completion of one level II fieldwork or consent of instructor.

## 234 COURSE DESCRIPTIONS

**OCTH 631 COMMUNITY GERONTOLOGY (3)** Planning and consulting for adult community programs. Prerequisite: Consent of instructor.

**OCTH 633 OCCUPATIONAL THERAPY TREATMENT IN PEDIATRICS (3)** Advanced treatment principles for developmental disabilities from the neurodevelopmental viewpoints, including provisions for care of children in health delivery systems, including the school. Prerequisite: OCTH 623.

**OCTH 670-679 SPECIAL TOPICS IN OCCUPATIONAL THERAPY (1-3)** Study of selected topics in occupational therapy. Prerequisites: Vary with each topic, consent of instructor.

**OCTH 691 DIRECTED READINGS IN OCCUPATIONAL THERAPY (1-3)** Guided review of literature to explore in-depth subjects related to occupational therapy theory and practice. Prerequisite: Graduate standing.

**OCTH 692 INDEPENDENT STUDY (1-6)** In-depth investigation specific to area of interest in Occupational Therapy. Prerequisite: Consent of department.

**OCTH 781 GRADUATE SEMINAR IN OCCUPATIONAL THERAPY (3)** Graduate project of thesis proposal preparation with feedback and discussion. Prerequisites: Admission to Occupational Therapy master's degree program, PSYC 687 and consent of department.

**OCTH 880 GRADUATE PROJECT IN OCCUPATIONAL THERAPY (3)** Implementation and documentation of a project designed in OCTH 781 that is oriented toward the application of specific techniques in occupational technology. Prerequisites: OCTH 781, successful completion of the graduate examination and consent of project adviser.

**OCTH 885 PROJECT CONTINUATION (1)** Continuation of graduate project. Pre-

requisite: Previous registration for project work.

**OCTH 897 THESIS (6)** Original investigation using an acceptable research method and design conducted under the direction of a faculty member. Prerequisites: OCTH 781, successful completion of the graduate examination and consent of thesis chairperson.

**OCTH 898 THESIS (3)** The previous course, OCTH 897, taken over two consecutive semesters.

**OCTH 899 THESIS CONTINUUM (1)**

## PHILOSOPHY AND RELIGIOUS STUDIES (PHIL)

**PHIL 501 PHILOSOPHIES OF INDIA (3)** Examination of major ideas in the Vedic, Epic, Classical darsana and modern periods. Prerequisite: One lower-level course in philosophy or consent of instructor.

**PHIL 502 PHILOSOPHIES OF CHINA AND JAPAN (3)** Examination of major philosophical systems through selected writings in translation. Prerequisite: One lower-level course in philosophy or consent of instructor.

**PHIL 509 AESTHETICS (3)** An analytical and historical examination of concepts of the nature of art, beauty, aesthetic value and aesthetic perception, and of the modes of existence of artifacts. Prerequisite: One lower-division course in philosophy.

**PHIL 511 ETHICS (3)** Analysis of readings from the principle classical and contemporary ethical sources, study of the basic moral concepts as found in these sources; application to contemporary moral concerns. Prerequisite: One lower-division course in philosophy.

**PHIL 513 PHENOMENOLOGY (3)** An examination of phenomenology as both a philosophical method and philosophical po-

sition. Themes to be considered include consciousness, the body, time and the experience of others. Primary course readings in the works of Husserl, Heidegger, Sartre, Merleau-Ponty. Prerequisite: 6 credits in philosophy.

**PHIL 517 EXISTENTIALISM (3)** Some of the major existentialist philosophers will be studied, e.g., Kierkegaard, Nietzsche, Heidegger, Sartre, Beauvoir. The philosophical themes of transcendence, the absurd, estrangement and anxiety will be considered. Prerequisite: 6 credits in philosophy.

**PHIL 522 HELLENISTIC AND MEDIEVAL PHILOSOPHY (3)** This course will deal with the philosophical schools of the Hellenistic and Roman periods, viz., Stoicism, Epicureanism, Scepticism and Neo-Platonism, and with the two main Christian philosophies of the Middle Ages, viz., Augustinianism and Thomism. Prerequisite: One lower-division course in philosophy.

**PHIL 524 MODERN PHILOSOPHY (3)** The history of philosophy, beginning with Descartes, through the 19th century. Prerequisite: One lower-division course in philosophy.

**PHIL 525 SCHOOLS OF CONTEMPORARY PHILOSOPHY (3)** A survey with varying emphasis on a number of such contemporary philosophical positions as pragmatism, phenomenology, logical positivism, the analysts, neo-Aristotelianism, the philosophers of science and the existentialists. Prerequisite: One lower-division course in philosophy.

**PHIL 526 AMERICAN PHILOSOPHY (3)** History of the main currents of American philosophical thought as exemplified in such writers as Edwards, Emerson, Pierce, James, Royce, Dewey and Whitehead. Prerequisite: One lower-division course in philosophy.

**PHIL 531 CONCEPTS OF WOMAN: A HISTORICAL APPROACH (3)** Various

concepts which philosophers have used to define women. A historical survey approach, with readings from Plato, Aquinas and others, and ending with Beauvoir. Prerequisite: One lower-division course in philosophy.

**PHIL 532 FEMINIST PHILOSOPHY (3)** Contemporary problems, including redefinition of traditional areas of philosophy and creation of new issues for investigation. Prerequisite: One lower-division philosophy course or consent of instructor.

**PHIL 539 THEORY OF KNOWLEDGE (3)** A historical and systematic approach to the truth, value and elements of the forms of human knowledge. The theories of major philosophers will be studied. Prerequisite: One lower-division course in philosophy.

**PHIL 540-549 PHILOSOPHICAL SYSTEMS (3)** The study of a major philosophical system or position, classical or modern, and its important proponents. Prerequisite: Two previous courses in philosophy.

**PHIL 551 PHILOSOPHY OF RELIGION (3)** Exposition of various approaches to the philosophy of religion with an analysis of the major issues on which they differ and agree. Prerequisite: Two previous courses in philosophy or religion.

**PHIL 555 INTRODUCTION TO THE NEW TESTAMENT (3)** Study of the literature, history, sociology and theology of the early Christian movement focusing on canonical and non-canonical materials. Prerequisite: One lower level course in philosophy or religious studies.

**PHIL 557 TOPICS IN COMPARATIVE RELIGION (3)** Exploration of culturally diverse religious traditions in terms of a specified theme, topic or problem. May be repeated for credit. Prerequisite: One lower level course in philosophy or religious studies.

**PHIL 561 BIOMEDICAL ETHICS (3)** A search for guidelines in such moral problems

as abortion, the care of the dying, organ transplants, informed consent in therapy and experimentation, adequate health care and its just distribution, control of human behavior by drugs, surgery, etc. Test-tube reproduction, population control, genetic engineering and counseling. Prerequisite: One lower-division course in philosophy or consent of instructor.

**PHIL 563 BUSINESS ETHICS (3)** Economics is one of the "moral sciences" in so far as it deals with an important sphere of human activity which intends a good. This course will institute a philosophical reflection on economic ideas as they appear in the three main categories of opinion, viz., conservative, liberal and radical. Attention will be drawn to the epistemological, ethical and metaphysical presuppositions of these traditions. Prerequisite: One lower-division course in philosophy.

**PHIL 570-579 PHILOSOPHICAL PROBLEMS (3)** A consideration of one of the perennial interests of philosophy. Prerequisite: Two previous courses in philosophy.

**PHIL 580-589 PHILOSOPHICAL TOPICS (3)** Courses offered under this title will be of variable content. Topics of traditional philosophical interest or of philosophical problems in other areas of knowledge or of contemporary interests will be offered. Prerequisite: One lower-division course in philosophy.

## PHYSICAL SCIENCE (PHSC)

**PHSC 501 ADVANCED LABORATORY IN PHYSICAL SCIENCE (2)** Exacting laboratory work of an advanced nature under the guidance of the physical science staff. Each student will present and defend his or her work at a seminar. May be repeated for a maximum of 6 credits. Prerequisite: Consent of instructor.

**PHSC 503 EARTH-SPACE SCIENCE (3)** Physical science principles applied in the

study of earth and space. Emphasis on experimental and discovery approaches. Prerequisite: PHSC 101.

**PHSC 505 FUNDAMENTAL CONCEPTS IN THE EARTH SCIENCES (3)** Principles of astronomy, geology and related earth sciences. Methods of investigation employed by earth scientists. Observations in the planetarium and field studies in the Baltimore area. Two lecture hours and one two-hour laboratory period. No credit allowed if student has taken ASTR 161 and/or PHSC 121. Prerequisite: GEOL 101 or equivalent.

**PHSC 511 PHYSICAL SCIENCE FOR TEACHERS (3)** An in-service course for teachers in the elementary and/or junior high school designed to develop physical science concepts. Emphasis will be placed on developing these concepts through laboratory work. Prerequisite: Teaching experience.

**ASTR 561 GENERAL ASTRONOMY II (3)** Stars, stellar systems, galaxies and cosmology. Emphasis in determination of the distance scale and modern trends in astronomy. Prerequisite: ASTR 161 General Astronomy I or equivalent.

**PHSC 570-579 SPECIAL TOPICS IN PHYSICAL SCIENCE (1-4)** The study of special topics in the areas of physical science. Special topics will be determined by their need for study and relevance to existing courses. May be repeated for credit provided a different topic is covered. Prerequisite: Consent of instructor.

**PHSC 594 TRAVEL STUDY (1-3)** A detailed investigation of field problems and phenomena. Locations and topics to be selected by the department and instructors sponsoring program. May be repeated for maximum of 3 credits. Prerequisite: Consent of instructor.

**PHSC 595 COURSE RESEARCH IN 500-LEVEL COURSES (1)**

## PHYSICIAN ASSISTANT STUDIES (PAST)

**PAST 601 RESEARCH METHODS IN PHYSICIAN ASSISTANT PRACTICE I (2)** This course examines theory and methodology for designing and coordinating qualitative and quantitative research. Prerequisite: Admission to program.

**PAST 602 ETHICS, ISSUES AND TRENDS IN PHYSICIAN ASSISTANT PRACTICE (3)** This course examines professional and ethical issues, as well as legal implications, confronting the physician assistant. Effect of social, political and economic changes is also explored, together with the physician assistant role in the health care team. Prerequisite: Admission to program.

**PAST 603 MEDICINE I (2)** Physiological and pathological mechanisms of disease process; treatment and preventive aspects of care are included. Prerequisite: Admission to program.

**PAST 604 MEDICINE II (6)** Second course in physiological and pathological mechanisms of the disease process, treatment and prevention. Prerequisites: Admission to program and completion of Medicine I.

**PAST 605 MEDICINE III (2)** Third course in physiological and pathological mechanisms of the disease process, treatment and prevention. Prerequisites: Admission to program and completion of Medicine I and II.

**PAST 606 PEDIATRICS I (2)** Clinical assessment and management of disease in infant to adolescent patients. Prerequisites: Admission to program and completion of Medicine I.

**PAST 607 PEDIATRICS II (2)** A second course in clinical assessment and management of disease in infant to adolescent patients. Prerequisites: Admission to program and completion of Pediatrics I.

**PAST 608 MEDICINE IV (5)** The fourth course in physiological and pathological

mechanisms of the disease process, treatment and prevention. Prerequisites: Admission to program and completion of Medicine III.

**PAST 609 PHARMACOLOGY I (2)** First of two courses in pharmacology dealing with initiating a monitoring routine drug therapy. Included are the principles of pharmacokinetics and pharmacodynamics. Prerequisites: Admission to program and completion of Medicine I.

**PAST 610 PHARMACOLOGY II (2)** The second of two courses in pharmacology dealing with initiating a monitoring routine drug therapy. Included are the principles of pharmacokinetics and pharmacodynamics. Prerequisites: Admission to program and completion of Pharmacology I.

**PAST 711 RESEARCH METHODS IN PA PRACTICE II (1)** A second course in Research Methods for Physician Assistant students. Development of a research proposal is emphasized. Prerequisite: PAST 601.

**PAST 712 PATIENT MANAGEMENT SEMINAR I (1)** This is the first course in a series of four courses dealing with case-based learning seminars and Grand Rounds. Prerequisites: Medicine IV, Pediatrics II, and Pharmacology II.

**PAST 713 PATIENT MANAGEMENT SEMINAR II (1)** This is the second course in a series of four courses dealing with case-based learning seminars and Grand Rounds. Prerequisite: Patient Management I.

**PAST 714 PATIENT MANAGEMENT SEMINAR III (1)** This is the third course in a series of four courses dealing with case-based learning seminars and Grand Rounds. Prerequisite: Patient Management II.

**PAST 715 PATIENT MANAGEMENT SEMINAR IV (2)** This is the final course in a series of four courses dealing with case-based learning seminars and Grand Rounds. Prerequisite: Patient Management III.

**PAST 801 PHYSICIAN ASSISTANT EXIT SEMINAR (2)** A capstone course for Physician Assistant students. Prerequisites: Admission to program and completion of PAST 711, Research Methods in PA Practice II and PAST 715, Patient Management Seminar IV.

## PHYSICS (PHYS)

**PHYS 507 INTRODUCTORY MATHEMATICAL PHYSICS (3)** As the mathematical maturity of the students will allow, selected topics will be examined such as the generalized expressions for forces and potentials, vector analysis, applications of Fourier series and complex variables, and solutions of the harmonic oscillator and wave equations. Three lecture hours. Prerequisites: PHYS 212 or PHYS 242; MATH 274.

**PHYS 511 MODERN PHYSICS (4)** Special relativity, the quantum theory, atomic structure and spectra, and nuclear structure and reactions are the main topics covered by the course. Other topics that may be covered involve molecular, solid state, and high energy physics. Four lecture hours. Prerequisites: MATH 274; PHYS 212 or PHYS 242.

**PHYS 533 BASIC ELECTRONICS (4)** Circuit components, characteristics of semiconductors, electrical measurements, method of circuit analysis, electronic devices. Three lecture hours and one three-hour laboratory. Prerequisite: PHYS 212 or PHYS 222 or consent of instructor.

**PHYS 534 DIGITAL ELECTRONICS (4)** Subjects covered will be basic concepts of digital electronics such as: gates, logic modules, truth tables, digital codes, sequential systems, semiconductor memories, decade counters, etc. The laboratory program is designed to give students firsthand experience on the material covered in lecture using integrated circuits and LED display systems. Two hours lecture and three hours laboratory. Prerequisite: MATH 115 or equivalent.

**PHYS 535 ELECTRONICS (3)** Principles of transistors with emphasis on their design and

construction and an introduction to logic circuits. Two lecture hours and one two-hour laboratory. Prerequisites: PHYS 305 and PHYS 335.

**PHYS 537 INTRODUCTION TO MICRO-PROCESSOR-BASED DIGITAL SYSTEMS (3)** Introductory course on basic microcomputer concepts. Topics covered include basic structure and organization of microcomputers, digital logic design, assembly language programming, memory elements and applications. Hardware-oriented experiments will be conducted providing practical experience in interfacing the microcomputer to a variety of instruments and input-output devices. Two hours lecture and two hours laboratory. Prerequisite: PHYS 337.

**PHYS 541-542 INTERMEDIATE PHYSICS LABORATORY, I, II (3, 3)** First semester: the measurement of several fundamental physical constants. Exploration of classical and modern research methods: lasers, holography, optical and nuclear spectroscopy. Second semester: several advanced experiments and a research project. Familiarization with machine shop procedure, vacuum and other experimental techniques. Five laboratory hours. Prerequisite: PHYS 311 or concurrently. (Lab II Prerequisite: PHYS 341.)

**PHYS 545 LASERS AND HOLOGRAPHY (3)** The wavefront-reconstructions, laser theory, the properties and making of holograms, and the applications of lasers and holography will be covered. Special projects will be assigned to students depending upon their individual theoretical and experimental backgrounds. Prerequisite: PHYS 243 or consent of instructor.

**PHYS 550 MECHANICS (4)** Systems of coordinates, kinematics and transformations; newtonian dynamics of particles; linear systems, oscillations and series techniques; calculus of variations and the Lagrangian and Hamiltonian formulations; application of Lagrangians to gravitation/central force motion. Optional; nonlinear oscillations. Prerequisite: PHYS 242, PHYS 307 or consent of instructor.

**PHYS 551 MECHANICS II (3)** Continuation of PHYS 351. Rotation transformations; perturbation and Green's function techniques in solution of oscillating systems; collisions; rotating frames of reference and dynamics of rigid bodies (including Euler's angles, precession, nutation); theory of coupled small oscillations. Optional; special relativity; continuum mechanics. Prerequisite: PHYS 351.

**PHYS 552 THERMODYNAMICS AND KINETIC THEORY (3)** Principles and laws of classical thermodynamics applied to simple irreversible processes, including chemical, elastic, electric and magnetic phenomena; thermodynamic functions and Maxwell's relations; the conservation equations in elementary kinetic theory; fluctuations and irreversible transfer effects. This course may be taken concurrently with PHYS 243 or by permission. Three lecture hours. Prerequisites: PHYS 212 or PHYS 243, MATH 274.

**PHYS 553 PHYSICAL OPTICS (3)** Electromagnetic theory of light, wave solutions, interference, diffraction, scattering, radiation from coherent and incoherent sources, elementary theory of masers and lasers. Three lecture hours. Prerequisite: PHYS 354 or consent of instructor.

**PHYS 554 ELECTRICITY AND MAGNETISM (4)** Electrostatics, magnetostatics and electromagnetic radiation, including Divergence Theorem and Stoke's Theorem, electrostatics in free space and dielectric materials, the Biot-Savart Law, the magnetic vector potential, inductance and electromotance, magnetic materials, Maxwell's equations in free space and in materials, boundary value problems (Snell's and Fresnel's Laws). Prerequisite: PHYS 243, PHYS 307 or consent of instructor.

**PHYS 555 INTRODUCTORY QUANTUM MECHANICS (3)** The Schrodinger equation, states of one particle in one dimension, potential barrier problems in one dimension, the harmonic oscillator, system of particles in one dimension, motion in three dimensions,

angular momentum, spin, application to atomic physics. Prerequisites: PHYS 311, PHYS 351 or concurrently.

**PHYS 556 INTRODUCTION TO STATISTICAL MECHANICS (3)** Distribution functions, microcanonical, canonical and grand canonical ensembles, the partition function and thermodynamics relations. Fermi-Dirac and Bose-Einstein statistics, some simple models and applications, the Maxwell-Boltzmann transport equation and the hydrodynamic equation, transport coefficients. Three lecture hours. Prerequisite: PHYS 455.

**PHYS 559 NUCLEAR PHYSICS (3)** A lecture and problem course dealing on an introductory level concerning experimental and theoretical method for the study of nuclear structure. Topics to be covered include: properties of nuclei, electromagnetic transition and beta decay; nuclear models, nuclear reactions and two-body interactions. Prerequisite: PHYS 311, PHYS 307 or consent of instructor; offered in alternate years.

**PHYS 585-586 PHYSICS SEMINAR I, II (1, 1)** Students participate in colloquia on topics of current interest in physics research under guidance instructor. One lecture hour. Prerequisite: Senior standing or consent of instructor.

**PHYS 590 INDEPENDENT STUDY IN PHYSICS (1-4)** Prerequisites: At least junior status and one course in the physics department; may be repeated for a maximum of 6 credits.

**PHYS 591 DIRECTED READINGS (1-4)** Prerequisites: At least junior status and one course in the physics department; may be repeated for a maximum of 6 credits.

**PHYS 595-596 RESEARCH PROBLEMS IN PHYSICS (1-3)** Individual project in any branch of physics. Students can choose either to work on projects or in areas suggested by physics faculty. At the completion of a project, the student must write a formal research paper on the work done. Students

may register for this more than once but at different levels. Prerequisite: Permission of the instructor who will direct the proposed work.

## POLITICAL SCIENCE (POSC)

**POSC 503 THEORY OF INTERNATIONAL POLITICS (3)** The theories of mutual relations of states. Elements of national power; international politics as a struggle for power. Restraints upon the struggle for power. Prerequisite: HIST 242 or POSC 107, or consent of instructor.

**POSC 505 URBAN GOVERNMENT AND POLITICS (3)** The political history of American cities from the 18th century through the recent reform movement. City charters, home rule, types of executives, political machines and the metropolitan area. Prerequisite: POSC 103.

**POSC 506 SIMULATION AND GAMES IN POLITICAL SCIENCE (3)** Analysis of political decisions using the formal methods of rational choice and game theory. Discussion of voting methods, public goods and paradoxes of collective choice. Use of computer simulations and games to model politics. Prerequisite: One upper-division (300 or 400) political science course or permission of the instructor.

**POSC 507 CONTEMPORARY INTERNATIONAL POLITICS (3)** Computer simulation (conducted jointly with colleges and universities throughout the world) used to study formulation and implementation of contemporary international politics. Prerequisite: POSC 107, POSC 303 or consent of instructor.

**POSC 508 COMPARATIVE GOVERNMENT OF FOREIGN POWERS: THE WESTERN WORLD (3)** Examination of the problems of modernization and stable constitutional rule in England, France, Italy and Germany. Prerequisite: POSC 101, POSC 137 or consent of instructor.

**POSC 509 COMPARATIVE POLITICAL SYSTEMS (3)** The course will attempt to bring together the analytical concepts and methodological techniques that may be applied to the study of political systems in a comparative sense. Prerequisite: POSC 103, POSC 137 or consent of instructor.

**POSC 512 THE LATIN AMERICAN POLICY OF THE UNITED STATES (3)** Analysis of the Latin American policy of the United States from the Monroe Doctrine to the present. Emphasis will be on historical, political, economic and security factors in the ebb and flow of inter-American relations. Prerequisite: POSC 101, POSC 137 or consent of instructor.

**POSC 514 PUBLIC ADMINISTRATION (3)** Administration as a central element of contemporary society, with special reference to the problems of government organization, control, personnel, finance and public relations. Prerequisite: POSC 103.

**POSC 515 THE PRESIDENCY (3)** A discussion of the origin of the office, the selection of the president and policy making in the executive branch. Prerequisite: POSC 103.

**POSC 516 CONGRESS (3)** An investigation of the relations of Congress with the other branches of government and with political parties and interest groups. The course also examines the relationships between a member of Congress and his constituency as well as the internal dynamics of Congress. Prerequisite: POSC 103.

**POSC 517 AMERICAN POLITICAL PARTIES (3)** Origin and development of the American two-party system. The activities of pressure groups and organizations and their effects upon the party system. Prerequisite: POSC 103 or consent of instructor.

**POSC 518 CONSTITUTIONAL LAW I (3)** The first half of a two-part sequence on the origins of the Constitution, federalism and the separation of power. Prerequisite: POSC 101 or POSC 103.



**POSC 519 CONSTITUTIONAL LAW II (3)**

The second half of two-part sequence covering the major issues of Constitutional law, focusing primarily on the activities of the Supreme Court in civil rights and civil liberties. Prerequisite: POSC 101 or POSC 103.

**POSC 520 LAW ONLINE (3)**

The role of law in society. Using information technologies for communication and research purposes, students work collaboratively with students from at least one other major university. Prerequisite: POSC 103 or consent of instructor.

**POSC 521 POLITICS AND ENVIRONMENTAL POLICY (3)**

Analysis and investigation of U.S. environmental problems from a political perspective. Prerequisite: POSC 103 or consent of instructor.

**POSC 527 POLITICAL THEORY I (3)**

Political thought in the West from the Greeks to the end of the 16th century. Prerequisite: POSC 101 or consent of instructor.

**POSC 528 POLITICAL THEORY II (3)**

Political philosophers and their writings since the 16th century. Attention given to the conflict of ideologies in the 20th century. Prerequisite: POSC 101 or consent of instructor.

**POSC 532 UNITED STATES-RUSSIAN RELATIONS (3)**

Relations between the United States and Russia. Emphasis on Soviet and post-Soviet periods, nationalities, democratization and creation of market economics. Prerequisite: Any 100-level political science course or consent of instructor.

**POSC 537 CASTRO AND THE CUBAN REVOLUTION (3)**

A discussion of the factors that led up to the Castro Revolution in 1959 and the subsequent impact of the creation of the first socialist state in the Western Hemisphere. Prerequisite: POSC 512, POSC 551 or consent of instructor.

**POSC 541 CONTEMPORARY UNITED STATES-WESTERN EUROPEAN RELATIONS (3)**

Emphasis will be on NATO, the European Economic Community and the

Anglo-American efforts to create an Atlantic partnership between Europe and the United States. Prerequisite: POSC 103, POSC 137 or consent of instructor.

**POSC 550 INTEREST GROUPS AND PUBLIC POLICY (3)**

The structure, organization, objectives and activities of interest groups and their impact on public policy. The access and influence of groups in lobbying and campaign financing. Prerequisite: POSC 103 or consent of instructor.

**POSC 551 THE GOVERNMENT AND POLITICS OF LATIN AMERICA (3)**

An examination of the informal and formal rules of the political "game" in Latin America with an emphasis on four types of political systems found in contemporary Latin America: democratic reformist, revolutionary, populist and military authoritarian. Prerequisite: POSC 101, POSC 137 or consent of instructor.

**POSC 555-556 INTERNATIONAL LAW AND ORGANIZATION I, II (3, 3)**

An examination of the theories and the development of international law up to the present. The character of the modern state system, the role of international organizations and international law, and the resort to force. Prerequisite: 15 credits in political science including POSC 303, or consent of instructor.

**POSC 557 SEMINAR: USE OF FORCE IN INTERNATIONAL LAW (3)**

Use of force as an instrument of foreign policy, legal restraints on its use. Prerequisite: 15 credits in POSC including POSC 303 or consent of instructor.

**POSC 561 RESEARCH METHODS IN POLITICAL BEHAVIOR (3)**

The major emphasis in this course will be on the use of quantitative techniques in political research. Topics include survey research, the use of computers and statistical analysis. Prerequisite: Any course at 100 level.

**POSC 564 JUDICIAL SYSTEM (3)** Roles, functions, and operations of American judi-

cial system. Examining ideology of law and justice, politics of criminal processing and consequences of legal decisions. Prerequisite: POSC 103 or consent of instructor.

**POSC 567 POLITICS AND THE BUDGETARY PROCESS (3)** Analysis of the budgetary process. Prerequisite: POSC 375 or consent of instructor (not open to students who have successfully completed the course as a special topic POSC 470-479).

**POSC 570-579 SPECIAL TOPICS IN POLITICAL SCIENCE (3)** Examination of current topics in political science. The content of the course will depend upon mutual faculty and student interest. Prerequisite: Any 100-level POSC course or consent of instructor.

**POSC 580 THE SUPREME COURT (3)** Roles, behavior, structure and operations of the United States Supreme Court. History, politics, decision making and impact of cases. Prerequisite: POSC 103 or consent of instructor.

**POSC 581 SEMINAR: PUBLIC POLICY ANALYSIS (3)** Theoretical and practical approaches in the analysis of policy formulation, implementation and evaluation. Prerequisite: 15 credits in POSC including one upper-division course or consent of instructor.

**POSC 582 SEMINAR IN POLITICAL SCIENCE (3)** Analysis of major issues in political science. Prerequisite: 15 credits in POSC including one upper-division course or consent of instructor.

**POSC 583 SEMINAR: POLITICS AND THE NEWS MEDIA (3)** Relationship between government and news media. Prerequisite: 15 credits in POSC including one upper-division course or consent of instructor.

**POSC 585 DEMOCRATIC THEORY SEMINAR (3)** 16th-century origins and analysis of variants. Prerequisite: 15 credits in POSC including POSC 428 or consent of instructor.

**POSC 586 SEMINAR: JUSTICE AND THE LAW (3)** Central legal, political and moral questions concerning justice and the law. Prerequisites: POSC 101, POSC 209 and POSC 401.

**POSC 588 SEMINAR: TOPICS IN PUBLIC POLICY (3)** Focus on policy areas of contemporary interest and significance. Prerequisite: 15 credits in POSC including one upper-division course or consent of instructor.

**POSC 590 INDEPENDENT STUDY (1-3)** Individual and supervised study in selected areas of political science. Admission by consent of instructor.

**POSC 591 SEMINAR IN CONTEMPORARY UNITED STATES FOREIGN POLICY (3)** Contemporary nature, basis and instruments of American foreign policy. Prerequisite: 15 credits of POSC including POSC 107 or 303 or consent of instructor.

**POSC 593 INTERNSHIP (3)** Familiarizes students with the practical working of government institutions in which students combine theory and practice. No more than 3 credits may be earned in any one semester. Prerequisites: Junior/senior standing and consent of instructor.

**POSC 690 DIRECTED RESEARCH IN POSC (3)** Supervised individual study and research in various topics in political science. Prerequisite: Consent of instructor.

## PROFESSIONAL WRITING (PRWR)

**PRWR 611 RHETORIC: THE PURSUIT OF ELOQUENCE (3)** Concepts of rhetoric, from classical to contemporary, which have shaped persuasive and expository writing. Prerequisite: Two 600-level writing courses or consent of instructor. Not open to students who have successfully completed WRIT 611.

**PRWR 612 RHETORICAL GRAMMAR (3)** Study and analysis of grammar as an extension of rhetorical effectiveness. Practice in adapting grammatical structure to subject and purpose, to audience, and to writer/audience relationship. Prerequisite: Admission to master's in Professional Writing (MPW) program or consent of instructor. Not open to students who have successfully completed WRIT 612.

**PRWR 613 THEORY OF EXPOSITION (3)** Exposition as an empirically based model for factual writing; conventions of diction, sentence form, paragraph and organization; techniques of verifiability and probability; adaptability to different audiences, fields of knowledge, and public purposes; illogical and emotional distortions in expository writing. Prerequisite: Admission to MPW program or consent of instructor. Not open to students who have successfully completed WRIT 613.

**PRWR 615 HISTORY AND DEVELOPMENT OF PROSE STYLE (3)** Theory of English prose style from earliest times to the present. Prerequisite: Admission to MPW program or consent of instructor. Not open to students who have successfully completed WRIT 615.

**PRWR 617 EDITING (3)** Study of fundamental editing theory and supervised practice in editing. Also practice in copy editing, exposure to electronic editing, overview of copyright and libel laws, and instruction in publication design and production. Prerequisite: Admission to a graduate program or consent of instructor. Not open to students who have successfully completed WRIT 617.

**PRWR 619 COMMUNICATION IN THE PROFIT/NONPROFIT SECTORS (3)** Communication process, with special emphasis on writing, within the profit/nonprofit organization. Theories of organization, management styles, and relationship of written messages to the function of climate of the profit/

it/nonprofit organization. Strategies of preparing written communication to meet internal and external needs. Prerequisite: Admission to MPW program or consent of instructor. Not open to students who have successfully completed WRIT 619.

**PRWR 621 BUSINESS WRITING (3)** Major forms of business and industrial writing, including correspondence, memoranda, short reports and long reports. Emphasis on audience analysis and planning of written communication to meet audience needs. Prerequisite: Two 600-level writing courses or consent of instructor. Not open to students who have successfully completed WRIT 621.

**PRWR 623 TECHNICAL AND SCIENTIFIC WRITING (3)** Intensive workshop in developing and editing technical documents: instructions, feasibility studies, investigation reports, proposals, etc. Not open to students who have successfully completed WRIT 623.

**PRWR 625 DESIGN, LAYOUT, AND PRODUCTION (3)** A foundation for the writer wishing to master graphic communication. Students will create a portfolio of finished printing, and tour studios, typesetting and printing plants. Prerequisite: PRWR 617 or WRIT 617 or consent of instructor. Not open to students who have successfully completed WRIT 625.

**PRWR 627 MODERN RHETORIC (3)** Current theories of rhetoric and composition, with emphasis upon the cognitive and social aspects of writing; relationships between language and abstraction, conventions of discourse communities, and various approaches to communication in a pluralistic society. Prerequisite: Admission to MPW program or consent of instructor. Not open to students who have successfully completed WRIT 627.

**PRWR 633 TEACHING COLLEGE COMPOSITION (3)** Prepares graduate students for teaching writing in the two-year college, or freshman writing at a four-year institu-

tion. Focuses on history, theories and the practice of teaching writing. Prerequisite: Four core courses; paired with Tutoring or Internship. Not open to students who have successfully completed WRIT 633.

**PRWR 641 THEORY OF CREATIVITY (3)** Current theory of creative process, its stages, and its relation to the central techniques of poetry and fiction. Focus on analyzing student writings as they embody creative techniques. Prerequisite: Admission to the MPW program. Not open to students who have successfully completed WRIT 641.

**PRWR 647 WRITING POETRY (3)** Poetry writing seminar; analysis of student and published poetry, with attention to craft and readership. Overview of modern theories of poetics and poetry criticism; survey of poetry markets and publishing procedures. Prerequisite: Any WRIT or PRWR 600-level course or consent of instructor. Not open to students who have successfully completed WRIT 647.

**PRWR 651 WRITING SHORT FICTION (3)** Short-fiction workshop. Analysis of student and published fiction with attention to plot, narrative technique, characterization and readership. Survey of short-fiction markets and publishing procedures. Prerequisite: Any PRWR or WRIT 600-level course or consent of instructor. Not open to students who have successfully completed WRIT 651.

**PRWR 653 WRITING THE NOVEL (3)** Workshop on the planning, writing and publishing of the novel. Prerequisites: One PRWR or WRIT 600-level course and consent of the instructor. Not open to students who have successfully completed WRIT 653.

**PRWR 660 SEMIOTICS FOR THE PROFESSIONAL WRITER (3)** Recognizing and interpreting the symbols, signs and implied messages of cultural environments. Focus is on creating and controlling these elements in professional writing. Prerequisite: Any PRWR or WRIT 600-level course or

consent of instructor. Not open to students who have successfully completed WRIT 660.

**PRWR 670-679 TOPICS IN WRITING (3)** Specialized focus on particular formats, theories or practices in professional writing. May be elected twice. Prerequisite: Two 600-level PRWR or WRIT courses or consent of instructor. Not open to students who have successfully completed WRIT 670-679.

**PRWR 691 RESEARCH TECHNIQUES IN PROFESSIONAL WRITING (3)** Major sources of primary and secondary information; observation, interview, survey, controlled experiment and library resources. Gathering, synthesizing and interpreting data using statistical analysis and computer programs. Techniques of poetry and fiction. Focus on analyzing student writings as they embody creative techniques. Prerequisite: Admission to the MPW program. Not open to students who have successfully completed WRIT 691.

**PRWR 705 WRITING CREATIVE NON-FICTION (3)** Sustained practice in incorporating creativity into the content, form, voice, tone and style of students' vocational and avocational nonfiction prose. Prerequisites: PRWR 611 or WRIT 611, PRWR 615 or WRIT 615, or consent of instructor. Not open to students who have successfully completed WRIT 705.

**PRWR 713 FREELANCE WRITING (3)** Freelance writing for magazines, newspapers, corporations, associations and technical journals. Analyzing markets, creating jobs; understanding copyrights, contracts and agents. Prerequisite: PRWR 613 or WRIT 613 or consent of instructor. Not open to students who have successfully completed WRIT 713.

**PRWR 729 CORPORATE COMMUNICATIONS CONSULTING (3)** Designing and marketing programs, and training writers in business and government. Finding clients, developing workshops, evaluating programs.

Students engage in consulting activities. Prerequisite: Recommended PRWR 625 or WRIT 625. Not open to students who have successfully completed WRIT 729.

**PRWR 730 WRITING REVIEWS (3)** Develop proficiency in writing and marketing reviews of books and other fine/performing arts presentations. Emphasize reviewing strategies and avenues for publication. Discuss student reviews, critical stances, role of critic and aesthetics. Rhetorical analysis reviews. Prerequisite: Any 600-level PRWR or WRIT course or consent of instructor. Not open to students who have successfully completed WRIT 730.

**PRWR 731 SCIENCE AND ITS PUBLIC AUDIENCE (3)** Addresses scientific writing as analyzable discourse, increasingly issue-oriented, public and available to nonscientists. Choosing issues, writing queries and articles. No background in sciences necessary. Prerequisite: Admission to a graduate program or consent of instructor. Not open to students who have successfully completed WRIT 731.

**PRWR 795 INDEPENDENT STUDY IN WRITING (3)** Directed independent study in selected areas of graduate-level writing. Prerequisite: Permission of instructor and graduate adviser. Not open to students who have successfully completed WRIT 795.

**PRWR 797 INTERNSHIP IN PROFESSIONAL WRITING (3)** Writing, editing, layout/design or communications consulting under the supervision of professionals in a work setting. Course may be taken only once. Prerequisites: Minimum of 15 credits completed in the program with a 3.00 average, successful completion of qualifying examination, and special permit from program director. Not open to students who have successfully completed WRIT 797.

**PRWR 897 THESIS (6)** Original writing of publishable quality, using skills emphasized in the course work of the program. Content and design of project to reflect goals and in-

terest of student. May be based on extensive library, laboratory or field research, or may be entirely creative. Prerequisites: Completion of all course work for M.S. in professional writing, 3.50 GPA and consent of program director. Not open to students who have successfully completed WRIT 898.

**PRWR 898 THESIS (3)** The previous course, PRWR 897, taken over two consecutive semesters.

**PRWR 899 THESIS CONTINUUM (1)**

## PSYCHOLOGY (PSYC)

**PSYC 503 INFANT AND CHILD DEVELOPMENT (3)** Advanced course reviewing historical and current changes in the areas of infancy and childhood. Emotional, cognitive and individual development will be covered in-depth. Emphasis is placed on critical analysis of research theory construction and methods. Prerequisite: PSYC 203; spring semester.

**PSYC 504 ADOLESCENT PSYCHOLOGY (3)** Physical, emotional and intellectual development during adolescence; social development and heterosexuality; adolescent personality; problems of adjustment; juvenile delinquency. Prerequisite: PSYC 203; fall and spring semester.

**PSYC 509 ORGANIZATIONAL PSYCHOLOGY (3)** Human relations in the work setting. Topics include theory and research concerning leadership, job satisfaction and motivation, organizational communication, group dynamics and organizational change. Prerequisites: 6 credits of psychology; fall semester.

**PSYC 511 TESTS AND MEASUREMENTS (3)** Psychological and educational testing and evaluation. The construction, administration, interpretation and use of the various evaluative devices of aptitude and achievement. Prerequisites: PSYC 101 and PSYC 212; fall, spring and summer semester.

**PSYC 512 PSYCHOPHARMACOLOGY (3)** Mechanisms of drugs, their effects on behavior, and related topics. Prerequisite: 9 credits of PSYC or consent of instructor.

**PSYC 513 BEHAVIOR MODIFICATION I (3)** Examination and application of the basic principles of the experimental analysis of behavior, with an emphasis on the applied aspects of this modern discipline to schools, jobs, interpersonal relations and self-control. Prerequisite: 9 credits of psychology or consent of instructor.

**PSYC 515 MOTIVATION (3)** Interaction between physiological, neurological and pharmacological aspects of motivation with environmental influences such as culture, learning and social dynamics. Issues in human motivation and emotion that will be emphasized are aggression, sex, achievement (competence) and cognitive-social influences. Prerequisites: 6 credits of psychology; PSYC 203 and junior standing recommended.

**PSYC 517 SENSATION AND PERCEPTION (3)** A systematic investigation of the basic senses such as vision, audition, taste, smell and touch will be undertaken. The organization of sensory input will also be emphasized. Both human and nonhuman data will be presented. Prerequisite: 9 credits of psychology or consent of instructor.

**PSYC 519 HUMANISTIC PSYCHOLOGY (3)** Explores the "third force" in modern psychology, considering the "whole" person-in-society, focusing on existential, transpersonal and mind-body psychology. Prerequisites: PSYC 101, PSYC 203.

**PSYC 524 SOCIAL PSYCHOLOGY (3)** The structure and function of groups. Recent advances in sociology, anthropology and psychiatry as related to psychology. Prerequisite: 6 credits of psychology; fall and spring semester.

**PSYC 531 GROUP DYNAMICS (3)** Intensive study of group interactions with emphasis

upon reciprocal group influence of behavior. Prerequisite: PSYC 325 or consent of instructor; fall semester.

**PSYC 532 CROSS-CULTURAL PSYCHOLOGY (3)** Comparison of psychological behavior and theory in Western and non-Western cultures. Prerequisite: PSYC 101.

**PSYC 535 INTERNSHIP IN PSYCHOLOGY (3-6)** Placement in a community service agency to familiarize the student with its current practices. Supervised client contract will be provided. May be repeated for a maximum of 12 credits but only 6 can apply to the major, the other 6 credits will be used as general electives. Prerequisites: Consent of instructor and 233 credits of psychology.

**PSYC 539 THE INITIAL INTERVIEW (3)** Clinical observation and practicum experience. Focus on interviewer and interviewee dimensions and relationship with patients. Use of tapes, seminars, and individual supervision. Prerequisites: Matriculation in Clinical Psychology Program and consent of instructor.

**PSYC 540 ENVIRONMENTAL PSYCHOLOGY (3)** The relationship between the physical and social environment and behavior, i.e., places, spaces and people. How man/woman construes, interprets, comprehends and feels about the environment and how the environment functions as a reflection of human needs and values. Topics include environmental design, crowding, privacy, human territoriality, personal space. Prerequisite: PSYC 101; fall and spring.

**PSYC 542 ABNORMAL PSYCHOLOGY (3)** Disordered personal reactions to life. Organic and functional phenomena plus therapeutic techniques. Prerequisite: 9 credits psychology including PSYC 203 or consent of instructor; fall and spring.

**PSYC 547 SEX DIFFERENCES: PSYCHOLOGICAL PERSPECTIVES (3)** Sex role/personality development is examined from vari-

ous perspectives: social, cultural, evolutionary and biological. Changing conceptions with regard to women, their roles and self-concepts, are emphasized within the overall context of sex difference and similarities in behavior. Prerequisite: PSYC 203 or permission of instructor.

**PSYC 549 THE PSYCHOLOGY OF LESBIAN CULTURE (3)** This course develops an understanding of the impact of culture on the development of a lesbian identity and on social/emotional aspects of a lesbian identity within a psychological framework. Prerequisite: Two courses in psychology or women's studies, or consent of instructor.

**PSYC 550 PERSONALITY (3)** Theoretical and practical approaches to the study of personality. Introduction to psychodynamics and to methods and materials of assessment. Prerequisite: 6 credits of psychology; fall and spring semester.

**PSYC 551 INTRODUCTION TO THE EXCEPTIONAL CHILD (3)** Children with atypical physical, mental, social and emotional development, including the physically handicapped, the mentally retarded, the gifted, and emotionally disturbed children. Prerequisite: PSYC 201, PSYC 203 or PSYC 211.

**PSYC 557 GENDER IDENTITY IN TRANSITION (3)** Psychological consequences of changing definitions of femininity, masculinity and personhood will be examined by using recent theories of gender identity formation. Concepts such as androgyny, sex-role transcendence and future shock will be related to psychological adaptation to change. Prerequisite: PSYC 315 or PSYC 447, or consent of instructor.

**PSYC 560 ETHOLOGY AND COMPARATIVE PSYCHOLOGY (3)** A survey of the major behavioral adaptations in nonhuman and human species, within the framework of evolutionary theory, ethology and experimental psychology. Three lecture hours

weekly. Prerequisite: 9 credits of psychology or consent of instructor.

**PSYC 561 COGNITIVE PSYCHOLOGY (3)** Examination of human cognitive processes and theories of cognition from the perspectives of information processing theory, neuroscience and connectionism. Topics include pattern perception, attention, memory, concepts, decision making, problem solving and language. Prerequisite: PSYC 314 or consent of instructor.

**PSYC 565 PHYSIOLOGICAL PSYCHOLOGY (3)** Course is concerned with an introduction to the physiological bases of behavior. The topics to be considered are basic neuroanatomy and neurophysiology, sensory and motor systems, motivational systems, and "higher order" behavioral systems. Three lecture hours weekly. Prerequisite: 9 credits of psychology or consent of instructor.

**PSYC 567 MIDLIFE DEVELOPMENT (3)** A study of adult behavior between the ages of 18 and 60. The developmental stages of young adulthood, adulthood and middle age will be discussed along with topics pertinent to each of the levels such as leaving and becoming emancipated from the family; the transition and adjustment to marriage and work; and bridging the gap between ideals and actual fulfillment. Prerequisite: PSYC 203.

**PSYC 570-579 SPECIAL TOPICS (1-3)** Survey and critical evaluation of modern literature pertaining to selected problems in psychology. May be repeated in a different topic for a maximum of 12 credits.

**PSYC 580 SYSTEMS OF PSYCHOLOGY (3)** Schools of psychology and their theoretical and methodological approaches. Prerequisites: Junior psychology major and consent of instructor; alternate springs.

**PSYC 581 READING IN PSYCHOLOGY (1-2)** A survey of relevant research literature under the guidance of a staff member who

will direct the student's research. This course may be taken a maximum of two times for major credit purposes. Prerequisites: 9 credits of psychology and consent of instructor.

**PSYC 591 INDEPENDENT INVESTIGATION IN PSYCHOLOGY (3)** Opportunity for specially qualified students to undertake research problems according to their interest and training under the direction of a staff member. May be repeated for a maximum of 12 credits but only 6 credits can apply to the major; the other 6 credits will be used as general electives. Prerequisites: PSYC 261 and consent of instructor; fall, spring.

**PSYC 594 TRAVEL AND STUDY ABROAD IN PSYCHOLOGY (1-3)** Study of selected topics, issues, programs, projects and/or facilities related to the field of psychology. Locations and topics to be selected by department and instructor sponsoring the program. Prerequisite: Consent of instructor.

**PSYC 603 HUMAN LEARNING (3)** Aspects of learning applicable specifically to human behavior including topics such as acquisition, memory, problem solving, creativity and language. Topics discussed within a framework of historic and current theoretical research perspectives. Prerequisite: 21 credits in psychology.

**PSYC 605 COUNSELING TECHNIQUES (3)** Training the student in practical counseling skills through demonstration and role playing with feedback in behavioral performance.

**PSYC 606 CAREER DEVELOPMENT (3)** Designed to familiarize students with aspects of career development, to introduce them to a variety of relevant resources and media, and to assist them in integrating this knowledge by planning a program of career development for a specific group.

**PSYC 607 APPLIED THEORIES OF COUNSELING (3)** Counseling theorists whose applied methodology has been suc-

cessful in the treatment of various client populations. Techniques and application of methodologies in field settings.

**PSYC 609 ADVANCED COUNSELING TECHNIQUES (3)** Advanced therapeutic interventions with various client populations. Prerequisites: PSYC 605 and PSYC 607.

**PSYC 610 ADVANCED PSYCHOLOGY OF AGING (3)** Advanced study of the changes in learning, emotions, personality and social behavior and the impact of culture and attitudes on aging. Prerequisite: 6 credits of psychology including PSYC 203. Students should be aware of how to read and understand psychology journals and how psychological research is conducted. Fall semester, evening, in alternate years.

**PSYC 611 DEVELOPMENTAL PSYCHOLOGY (3)** Psychological structures and functions in human development across the life span. Both theoretical and research approaches are presented.

**PSYC 613 COMMUNITY MENTAL HEALTH COUNSELING (3)** Types of community health services and the relationships between those services; the responsibility of counseling in a mental health center; and the area of mental health consultant. Emphasis will be given to the application of counseling skills in a mental health setting.

**PSYC 615 INTRODUCTION TO RESEARCH METHODS IN COUNSELING (3)** Principal methods of behavioral research emphasizing concepts rather than statistical procedures. Preparation of counselors to evaluate methods, designs, and results of counseling research.

**PSYC 620 ASSESSMENT OF INTELLIGENCE (3)** Construction, standardization, administration, scoring and interpretation of tests. Prerequisites: Matriculation in Clinical or School Psychology and consent of program director.



**PSYC 622 ADVANCED MULTI-CULTURAL PSYCHOLOGY (3)** Promotion of cultural awareness and understanding of relevant theories, terminology, and techniques for communicating and working with individuals of diverse backgrounds. Prerequisites: Advanced standing in counseling, clinical or school psychology and consent of the instructor.

**PSYC 625 BEHAVIORAL TECHNIQUES (3)** Application of behavioral strategies to children in home and school settings. Consultation stressed. Prerequisites: 21 credits in psychology, matriculation in graduate program in Psychology, consent of program director.

**PSYC 631 ADVANCED ABNORMAL PSYCHOLOGY (3)** Current and historical perspectives of psychopathology. Emphasis on various diagnostic approaches. Prerequisite: PSYC 361.

**PSYC 637 COUNSELING STRATEGIES FOR DRUG AND ALCOHOL ABUSE (3)** Understanding the basic issues of substance abuse, referrals, clinical assessments and developing counseling strategies for successful intervention.

**PSYC 647 USE OF TESTS IN COUNSELING (3)** Practice in the use and analysis of techniques for understanding the individual with emphasis upon standardized procedures.

**PSYC 651 INDIVIDUAL AND GROUP INTERVENTIONS (3)** Group and individual intervention strategies. Prerequisite: Matriculation in School, Clinical or Counseling Psychology or consent of instructor.

**PSYC 653 RESEARCH ISSUES IN SCHOOL/CLINICAL PSYCHOLOGY (3)** Analysis of major issues in school and/or clinical psychology. Prerequisites: PSYC 212, graduate standing in School or Clinical Psychology, and consent of program director.

**PSYC 661 FOUNDATIONS OF REHABILITATION COUNSELING (3)** Development of rehabilitation programs; their legal basis and historical background. Roles of medical, psychological, educational and community resources in the rehabilitation program included. Client eligibility, determination, counselor responsibilities will be reviewed.

**PSYC 665 PSYCHOTHERAPY AND BEHAVIOR CHANGE I (3)** First of two-semester sequence. Readings, lectures and actual experience related to theories and techniques currently used for behavior change. Individual psychotherapy, family therapy, transactional analysis, rational-emotive therapy and behavior modification reviewed. May be taken without Psychotherapy and Behavior Change II. Prerequisites: Graduate standing in School or Clinical Psychology tracks and consent of program director.

**PSYC 666 PSYCHOTHERAPY AND BEHAVIOR CHANGE II (3)** Second of two-semester sequence. Continued analysis of psychotherapy approaches through readings, lectures and experience. Prerequisites: PSYC 665 and consent of program director.

**PSYC 667 PSYCHOSOCIAL ASPECTS OF DISABILITY (3)** Psychosocial challenges facing the disabled person's self-concept. Approaches to facilitating independence and self-actualization.

**PSYC 668 MEDICAL ASPECTS OF DISABILITY (3)** Structure and function of bodily systems and implications of physical disabilities in coping with the problems of daily living.

**PSYC 673 ADVANCED EXPERIMENTAL PSYCHOLOGY I (4)** Experimentation in the field of human behavior. Prerequisites: PSYC 212, PSYC 314 or equivalent; consent of department.

**PSYC 674 ADVANCED EXPERIMENTAL PSYCHOLOGY II (4)** Major concepts, processes and methods in the field of animal be-

havior, with primary emphasis on ethology and comparative psychology. Prerequisites: PSYC 212, PSYC 314 or equivalent; consent of department.

**PSYC 675 PROSEMINAR I (3)** Selected issues in areas such as learning, motivation, physiological psychology and ethology-comparative psychology within the context of research and scientific writing. Prerequisite: PSYC 314 or equivalent.

**PSYC 676 PROSEMINAR II (3)** Selected issues in areas such as social, developmental, industrial, personality, ethology/comparative, and physiological psychology. Prerequisite: PSYC 314 or equivalent.

**PSYC 677 LEARNING (3)** Overview of current issues in learning. Emphasis on the critical analysis and reporting of primary literature. Prerequisite: PSYC 305 or consent of instructor.

**PSYC 679 SPECIAL TOPICS SEMINAR (1-3)** Topics vary, according to the instructor.

**PSYC 685 COLLEGE TEACHING PRACTICUM (3)** Supervised teaching of introductory psychology. Prerequisite: PSYC 684.

**PSYC 687 ADVANCED EXPERIMENTAL DESIGN I (3)** Treatment of descriptive and inferential statistical methods and design considerations. Prerequisite: PSYC 212 or equivalent.

**PSYC 688 ADVANCED EXPERIMENTAL DESIGN II (3)** Treatment of advanced analysis of variance designs and related techniques. Prerequisite: PSYC 687 or equivalent.

**PSYC 689 MULTIVARIATE METHODS (3)** Multivariate statistical methods useful in behavioral scientific research. Topics: correlation, regression, factor analysis, discriminate analysis. Prerequisites: PSYC 687 and HRD 695.

**PSYC 695 INDEPENDENT STUDY (3)** Individual and supervised study in selected areas of psychology. Prerequisite: Consent of instructor.

**PSYC 697 PRACTICUM IN CLINICAL PSYCHOLOGY (1-6)** Supervised experience in psychological interviewing, assessment and psychotherapy. Practicum in which students will meet for individualized supervision with the practicum instructor. Prerequisites: PSYC 620, M.A. candidacy in Clinical Psychology and consent of program director.

**PSYC 703 PRESCHOOL ASSESSMENT (3)** Formal and informal assessment techniques including behavioral assessments and adaptive behavior scales. Prerequisites: PSYC 620, matriculation in School Psychology Track or consent of program director.

**PSYC 713 ROLE OF THE SCHOOL PSYCHOLOGIST (3)** History and foundations of school psychology, ethics and standards of practice, professional trends, organization and operation of schools. Prerequisites: Matriculation in School Psychology Track and consent of program director.

**PSYC 715 ADVANCED SEMINAR IN PSYCHOTHERAPY (3)** Counseling and therapy techniques used by counselors and other professional personnel working with children and adults. Prerequisite: PSYC 609.

**PSYC 717 THEORIES OF FAMILY COUNSELING (3)** Theoretical approaches and strategic methods of evaluating and counseling disturbed families.

**PSYC 718 TECHNIQUES OF FAMILY COUNSELING (3)** Identification of problems that cause families to deteriorate, diagnosis of those problems, and techniques that will help families work through their difficulties. Emphasis on development of skills essential to effective family counseling practice. Prerequisites: Must have passed the departmental advancement candidacy examination or be enrolled in the CAS Program, and consent of the course instructor.

**PSYC 721 GROUP COUNSELING (3)** Theories, principles and techniques of group counseling. Prerequisites: Must have passed the departmental advancement to candidacy examination and have consent of instructor.

**PSYC 722 ADVANCED MULTICULTURAL COUNSELING (3)** Self-awareness, theoretical, assessment and treatment issues in the areas of multicultural counseling. Prerequisites: Advanced standing in counseling or clinical psychology including successful completion of the Advancement to candidacy exam, and consent of the instructor or enrollment in the CAS program and consent of instructor.

**PSYC 731 SCHOOL-BASED CONSULTATION (3)** Theoretical and applied aspects of school consultation within framework of curricular, administrative and overall school environment. Prerequisite: Matriculation in School Psychology Track or consent of instructor.

**PSYC 733 EXCEPTIONAL CHILD: ADVANCED ISSUES (3)** Identification of and planning for the major exceptionalities in the schools. Stress on major diagnostic categories and relevant new techniques. Prerequisite: Matriculation in School Psychology Track or consent of program director.

**PSYC 745 PRACTICUM IN COUNSELING PSYCHOLOGY (1-3)** Supervised experience in educational, vocational and personal counseling. Must be taken in two separate semesters (3 credits per semester). Prerequisites: PSYC 609, PSYC 790 and must have passed the departmental advancement to candidacy examination and have consent of counseling program director.

**PSYC 755 COGNITIVE THERAPY I (3)** Theory and techniques of cognitive and rational-emotive therapy, including assessment strategies and basic applications. Prerequisites: PSYC 631, PSYC 655, PSYC 665, matriculation in Clinical Psychology Program and consent of program director.

**PSYC 756 COGNITIVE THERAPY II (3)** Advanced applications of cognitive and rational-emotive therapy to specific clinical problems and differing client populations, ranging from children to adults. Prerequisites: PSYC 631, PSYC 655, PSYC 665, matriculation in Clinical Psychology Program and consent of program director.

**PSYC 761 SOCIAL-EMOTIONAL ASSESSMENT OF CHILDREN AND ADOLESCENTS (3)** Administration, scoring and interpretation of currently used assessment techniques. Prerequisites: Matriculation in School Psychology Track or Clinical Psychology Program and consent of program director.

**PSYC 765 PERSONALITY ASSESSMENT IN CLINICAL PSYCHOLOGY (3)** Theoretical and empirical bases underlying personality assessment. Introduction to methods and instruments used in clinical evaluation. Prerequisites: Matriculation in Clinical Psychology Program and consent of program director.

**PSYC 766 ADVANCED PERSONALITY ASSESSMENT IN CLINICAL PSYCHOLOGY (3)** Expand skill-building process in administration, analysis and report of personality assessment data with clinical populations. Prerequisites: PSYC 765 and consent of program director.

**PSYC 771 SCHOOL PSYCHOLOGY PRACTICUM I (3)** Fieldwork under the supervision of a certified or licensed psychologist. Prerequisites: PSYC 620 and PSYC 761; matriculation in School Psychology Program and consent of program director.

**PSYC 773 SCHOOL PSYCHOLOGY PRACTICUM II (3)** Fieldwork under the supervision of a certified or licensed psychologist. Students must be available for clinic or school placement. Stress on techniques appropriate for the schools. Prerequisites: PSYC 651, PSYC 731 and PSYC 771; matriculation in School Psychology Program and consent of program director.

**PSYC 790 ETHICAL, LEGAL AND PROFESSIONAL ISSUES IN PSYCHOLOGY (3)** Treatment of ethical, legal and professional issues related to the practice of school, clinical and counseling psychology. Prerequisite: Consent of instructor.

**PSYC 793 INTERNSHIP IN COUNSELING PSYCHOLOGY (3-9)** Intensive experience within a counseling facility involving exposure to the many facets of a mental health professional, including administrative and record-keeping duties; individual and group counseling observations and experiences; referral resources, etc. This course may be repeated up to a total of three times to meet the 1,000-hour counselor licensure requirements. Prerequisites: PSYC 745 and consent of instructor.

**PSYC 794 INTERNSHIP IN SCHOOL PSYCHOLOGY (1-3)** Students must be enrolled in the School Psychology Program to enroll in this course. Student applies for placement in an internship in a school or clinic. This course may be repeated up to a total of four times. Prerequisites: CAS candidate in School Psychology Concentration and consent of program director.

**PSYC 797 INTERNSHIP IN CLINICAL PSYCHOLOGY (3)** Supervised field experience in a community mental health center, state psychiatric hospital, or other public mental health facility with exposure to the duties of a master's level clinical psychologist including psychological assessment, psychotherapy and report writing. Prerequisites: PSYC 697 and consent of Clinical Psychology Program director.

**PSYC 897 THESIS (6)**

**PSYC 898 THESIS (3)** The previous course, PSYC 897, taken over two consecutive semesters.

**PSYC 899 THESIS CONTINUUM (1)**

## READING EDUCATION (REED)

**REED 601 READING THEORY AND PRACTICE (3)** Theoretical foundations of reading instruction; methods and materials used in integrated literacy learning. Prerequisite: One undergraduate course in teaching of reading.

**REED 602 TEACHING READING: THEORY AND PRACTICE (3)** Opportunity to develop an understanding of the reading process, consider competing theories of reading, learn about reading assessment and explore a range of instructional strategies and materials for integrating literacy into K-12 classrooms. This course has some overlap with REED 601; however this course includes substantial components on reading assessment that REED 602 does not contain. This course may appear to parallel SCED 560; however this course has a broad K-12 perspective.

**REED 605 MARYLAND SCHOOL PERFORMANCE PROGRAM: READING AND WRITING ASSESSMENT AND INSTRUCTION (3)** MSPP reading and writing outcomes, assessment, and instruction including application of instructional stances and scoring rubrics. Prerequisite: One undergraduate course in reading.

**REED 609 READING ASSESSMENT (3)** Reading assessment using both standardized tests and informal procedures; interpretation of assessment data. Prerequisite: REED 601.

**REED 620 IMPROVING LITERACY OF ADOLESCENTS & ADULTS WITH LANGUAGE-LEARNING DISABILITIES (3)** Examines the characteristics of adolescents and adults with language-learning disabilities, how to identify their needs for literacy improvement, and how to design and implement an individualized program for literacy development. Prerequisite: REED 601, Theories & Practices in Reading or/equivalent.

**REED 621 READING DISABILITIES (3)** Etiology of reading disabilities, observation and interview procedures, standard and informal tests, report writing and instructional intervention. Prerequisites: REED 601 and REED 609.

**REED 623 EVALUATION OF READING RESEARCH (3)** Research and experimentation methodology. Prerequisites: A course in test and measurements of statistics and consent of instructor.

**REED 626 CLINIC INTERNSHIP IN READING (3)** Supervised clinical experience with clients with reading difficulties. Prerequisites: REED 601, REED 609 and REED 621.

**REED 628 GUIDED READING (3)** Examines how to scaffold reading instruction using the process of guided reading. Includes analyzing multiple perspectives on guided reading and applying the approach to instruction with small groups of children in a clinical setting. Prerequisite: REED 601 or equivalent.

**REED 632 IMPROVING LITERACY OF ADOLESCENTS AND ADULTS WITH LANGUAGE-LEARNING DISABILITIES (3)** Examines the characteristics of adolescents and adults with language-learning disabilities, how to identify their needs for literacy improvement, and how to design and implement an individualized program for literacy development. Prerequisite: REED 601 or equivalent.

**REED 660 INTEGRATING TECHNOLOGY IN LITERACY INSTRUCTION (3)** A course designed to help teachers develop technology-based reading instruction. Emphasis on designing reading segments on phonemic awareness, vocabulary development, comprehension and writing, using presentation, graphics, and multimedia authoring software. Prerequisites: ISTC 301/501 and REED 601 or equivalent.

**REED 663 STRATEGIC USE OF MATERIALS IN A BALANCED LITERACY CLASSROOM (3)** Theories underlying literature-based instruction examined; recent research evaluated, instructional techniques introduced, modeled, and applied; materials for instruction cooperatively developed; and criteria for literature selection established. Prerequisite: REED 601.

**REED 665 TEACHING READING AND WRITING IN THE CONTENT AREAS K-12 (3)** Examination of interrelationship of reading and writing, and their roles in instruction of content areas, K-12. Prerequisite: REED 601.

**REED 670 SPECIAL TOPICS IN READING EDUCATION (3-6)** In-depth study of a selected topic in reading education. Specific requirements and prerequisites will vary and will be designated by the department each time a topic is scheduled. Approval by the Reading program director is required. Prerequisite: Varies according to topic.

**REED 695 INDIVIDUALIZED STUDY IN READING EDUCATION (3-6)** Individually planned program of study, which will permit the student to engage in research and/or field studies in reading education. Approval by the Reading program director is required. Prerequisite: Varies according to areas of study.

**REED 710 MULTICULTURAL LITERATURE FOR CHILDREN AND ADOLESCENTS (3)** An in-depth critical examination of multicultural literature for young children and adolescents. Strategies for selecting and evaluating texts and resources will be explored considering issues of voice, worldviews, culture, rituals, language, and lifestyles.

**REED 726 ADVANCED CLINIC INTERNSHIP IN READING (3)** Advanced clinical experience with clients, families and para-professionals. Prerequisite: REED 626.

**REED 729 SEMINAR IN READING (3)** Review of theories and research in the field of reading. Prerequisite: 21 credits in reading education or consent of instructor.

**REED 740 GRANT WRITING IN EDUCATION (3)** Essentials of proposal development and funding acquisition. Exploration of specific steps involved in the grant writing process via lecture, class discussion, small group work and individual instructor consults. By the conclusion of the course, student will have successfully created an actual grant application that is ready for submission to potential funding source. Prerequisite: Completed masters in education.

**REED 751 LANGUAGE, LITERACY AND CULTURE (3)** Historical perspectives and current topics in the fields of linguistics, semiotics, and culture studies will inform the discussion of literacy learning in a variety of contexts.

**REED 752 LITERACY THEORY AND RESEARCH (3)** Expand insights into past and current research and theory in the literacy field. Critically analyze research findings and develop a research proposal.

## SCIENCE EDUCATION (SCIE)

**SCIE 551 TEACHING SCIENCE IN EARLY CHILDHOOD (2)** Course is designed to familiarize the student with appropriate methods and materials in science for the young child. Emphasis will be on interdisciplinary approach. Prerequisite: ECED 341 or concurrently.

**SCIE 570-575 SEQUENTIAL SCIENCE MODULES FOR THE ELEMENTARY SCHOOL TEACHER I-VI (1-3)** Three different modules of science instruction will be offered each semester for teachers of primary and intermediate grades. The course will emphasize instructional strategies in both the process and content of the science. A student may elect to take one, two or all three mod-

ules for 1, 2 or 3 credits respectively. All students must attend the first class meeting for course orientation. Thereafter, each module will meet once a week for four weeks. Each meeting will consist of approximately four hours laboratory work. Prerequisite: Teaching experience in the elementary schools.

**SCIE 576 TEACHING SCIENCE IN THE ELEMENTARY SCHOOL (3)** Application, analysis and integration of science teaching skills in the elementary classroom. Field experience in local schools. Taken concurrently with BIOL 303 and PHSC 303.

**SCIE 580 TEACHING SCIENCE IN THE SECONDARY SCHOOLS (3)** Selection of appropriate content, method and evaluation techniques, analysis of textbooks and resource materials for teaching science in the middle and high schools. Must be taken the semester prior to student teaching. Prerequisite: SCED 341 or ELED 363.

**SCIE 670-679 SPECIAL TOPICS IN SCIENCE EDUCATION (1-4)** Selected topic in science education. Prerequisite: Varies with topic.

**SCIE 685 SEMINAR IN ELEMENTARY SCHOOL SCIENCE (3)** Practices and trends in organizing, teaching and improving programs in elementary school science. Prerequisite: Elementary teaching.

## SECONDARY EDUCATION (SCED)

**SCED 518 YOUNG ADULT LITERATURE (3)** Literature as expression of basic needs and ideas of youth through independent reading; criteria and aids for evaluation and selection of books and other media. Not open to those who have completed EDUC 418/518.

**SCED 558 WRITING AS A LEARNING TOOL IN THE SECONDARY SCHOOL (3)** Strategies for using writing to learn con-

tent in all disciplines; examination of the writing process: diagnosis, prewriting, drafting, revision, evaluation and publication. Prerequisites: SCED 341 and SCED 319, or consent of instructor.

**SCED 560 USING READING AND WRITING IN THE SECONDARY SCHOOL (4)** Developmental reading and writing, assessment, vocabulary building, comprehension, special needs adaptations and clinical practice. Prerequisites: SCED 341 or concurrently; written permission from the Department of Secondary Education chairperson. (Written permission not required for part-time evening students.)

**SCED 561 TEACHING READING IN THE SECONDARY CONTENT AREAS (3)** Application and assessment of reading strategies and instructional frameworks in secondary content classroom. Prerequisites: SCED 560 and currently teacher or student.

**SCED 563 DEVELOPMENTAL READING FOR THE EARLY ADOLESCENT (3)** Methods of designing and teaching developmental reading programs for the middle or junior high school student. Attention to the following: providing for individual differences, teaching students to read critically, developing and extending reading interests. Prerequisite: SCED 460 or equivalent reading methods course.

**SCED 570-579 SPECIAL TOPICS IN SECONDARY EDUCATION: (Topic to be named) (1-3)** In-depth study of a selected topic in secondary or adult education. Specific requirements and prerequisites will vary with each topic and will be designated by the department each time a topic is scheduled. Graduate credit only with approval of the graduate program director. Each topic may be taken as a separate course.

**SCED 594 TRAVEL AND STUDY IN SECONDARY EDUCATION (1-6)** Study abroad of educational facilities, programs or practices, or selected projects in education

topics. By special arrangement with program chairperson and sponsoring instructor. Consent of graduate program director required for graduate credit.

**SCED 595 INDEPENDENT STUDY IN EDUCATION: SECONDARY (1-4)** An opportunity for specially qualified students to undertake research problems or study projects relevant to their interest and training under the direction of a staff member. Prerequisite: Consent of graduate program director.

**SCED 596 DIRECTED READING IN SECONDARY EDUCATION (1-4)** Independent reading in selected areas of secondary education in order to provide a comprehensive coverage for the individual, or to meet special needs. By invitation of the department to qualified students. Prerequisite: Consent of graduate program director.

**SCED 603 TEACHING WRITING ACROSS THE CURRICULUM (3)** The process of writing, given for specific school systems, by the Maryland Writing Project. Small group and assessment techniques included. Prerequisites: Bachelor's degree and teaching experience. Graduate credit only with approval of the graduate program director.

**SCED 605 THEORY, RESEARCH AND PRACTICE IN TEACHING COMPOSITION (6)** The teaching of writing skills, K-university and across disciplines; training of participants to become Maryland Writing Project teacher consultants. Prerequisites: Bachelor's degree and teaching experience; consent of Maryland Writing Project director.

**SCED 621 INDIVIDUALIZING LEARNING IN THE SECONDARY SCHOOL (3)** Philosophical and psychological bases; goal development; organizational patterns; assessment; teaching strategies in content areas; grading and evaluation; programming for classroom, departmental and school levels. Prerequisite: Teaching experience.

**SCED 623 THE MIDDLE SCHOOL (3)** Functions and characteristics, historical development, philosophical and psychological bases, nature of youth, and curriculum and organizational patterns.

**SCED 625 TEACHING IN THE MIDDLE SCHOOL (3)** Goals and objectives, planning, instructional procedures and materials, evaluation techniques, and special problems of instructing preadolescents. Prerequisite: Teaching experience.

**SCED 627 TRAINING STRATEGIES IN THE WORKPLACE (3)** Teaching/learning dimensions of adults in nontraditional settings - business, industry, government and the nonprofit sector. Prerequisite: Business or personnel experience, or consent of instructor.

**SCED 631 THE COMMUNITY COLLEGE (3)** Historical development, purposes and goals, curriculum evaluation, finance, accreditation and trends, state and national patterns and current student needs. Prerequisite: Consent of instructor.

**SCED 633 CURRICULUM AND INSTRUCTION IN THE COMMUNITY COLLEGE (3)** Educational programs, curricula, instructional techniques, evaluative procedures, community involvement and societal expectations, concerns and trends affecting programs, and objectives as related to institutional goals. Prerequisite: SCED 631 or equivalent.

**SCED 635 DISCIPLINE AND CLASSROOM MANAGEMENT IN SECONDARY SCHOOLS (3)** Theories of pupil behavior and effective discipline, procedures and routines for efficient classroom management, discipline problems in urban and suburban schools, and solutions to discipline problems. Prerequisite: Teaching experience or completion of student teaching.

**SCED 643 THE ADMINISTRATION OF THE SECONDARY SCHOOL (3)** Principles

and practices, administrator's roles and responsibilities, human relations and personnel management of the school unit and curriculum. Prerequisite: Three years teaching experience.

**SCED 647 ADVANCED TEACHING AND LEARNING PROCESSES, SECONDARY (3)** Theory and research on models of teaching and learning, systems for analyzing modalities, including brain hemispheric preferences and metacognitive strategies. Prerequisite: Teaching experience or consent of instructor.

**SCED 649 TEACHING GIFTED STUDENTS IN THE SECONDARY SCHOOL (3)** Characteristics of gifted adolescents, role of the gifted in society, educational programs, identification procedures, administrative arrangements, curriculum and methodology.

**SCED 651 TECHNIQUES FOR TEACHING SPECIAL-NEEDS ADOLESCENTS AND ADULTS (3)** Assessment, diagnostic and remedial strategies, and motivational devices for adolescents and adults of below-average mental ability as defined under IDEA. Prerequisite: Teaching experience, student teaching or consent of instructor.

**SCED 670-674 SPECIAL TOPICS IN SECONDARY EDUCATION (1-3)** In-depth study of a selected topic. Specific requirements and prerequisites vary as designated by the department. Prerequisite: Consent of graduate program director.

**SCED 683 STAFF DEVELOPMENT AND SUPERVISORY PRACTICES IN SECONDARY SCHOOLS (3)** Roles of the supervisor, theories and practices. Prerequisite: Current teaching experience.

**SCED 695 INDEPENDENT STUDY IN EDUCATION: SECONDARY (1-4)** Independent study in selected areas of secondary education. Prerequisite: Consent of instructor.



**SCED 696 DIRECTED READING IN SECONDARY EDUCATION (1-4)** Independent reading in selected areas of secondary education. Prerequisite: Consent of instructor.

**SCED 731 FIELD EXPERIENCES IN ADOLESCENT OR ADULT LEARNING DISABILITIES (3)** Observation and analysis of adolescents or adults with learning disabilities, assessment strategies, design of remedial activities, evaluation of observed teaching/learning strategies, and preparing written reports of observations. Prerequisites: One course in special education or learning disabilities, and approval of instructor.

**SCED 741 CURRICULUM DEVELOPMENT IN THE SECONDARY SCHOOL (3)** Principles and practices, significant historical and contemporary influences, objectives, content and evaluation, trends, and teachers as curriculum developers and implementers. Prerequisite: Consent of instructor.

**SCED 751 SEMINAR IN MIDDLE SCHOOL CURRICULUM (3)** Curriculum designs and programs, organization for instruction, teacher preparation programs, guidance and nature of middle school students, community involvement and evaluation. Prerequisite: Middle school teaching experience or consent of instructor.

**SCED 753 SEMINAR IN SECONDARY SCHOOL CURRICULUM (3)** Theories, research and evaluation; analysis of present programs; rationale for program development and change. Prerequisite: Graduate course in curriculum.

**SCED 770-774 SPECIAL TOPICS IN SECONDARY EDUCATION (1-3)** In-depth study of a selected topic. Specific requirements and prerequisites vary as designated by the department. Prerequisite: Consent of graduate instructor.

**SCED 779 SEMINAR IN SECONDARY SCHOOL SOCIAL STUDIES (3)** Current research, trends, practices, issues, content, ma-

terials and problems. Prerequisite: Teaching experience in social studies.

**SCED 781 INTEGRATED PROFESSIONAL PRACTICE SEMINAR (3)** Trends, issues, problems in education. Integrative investigations through quantitative/qualitative research, curriculum and instruction development or policy and program development for selected aspects of secondary education. Prerequisite: 21 credits of graduate work.

**SCED 797 INTERNSHIP IN SECONDARY ADMINISTRATION/SUPERVISION (3)** Supervised field experience in secondary school settings, focusing on roles and responsibilities of administrators and supervisors. Prerequisites: Completion of SCED 741, SCED 683, SCED 643 and written approval by school administrator and university supervisor of proposed leadership activities.

**SCED 897 MASTER'S THESIS IN SECONDARY EDUCATION (6)**

**SCED 898 THESIS (3)** The previous course, SCED 897, taken over two consecutive semesters.

**SCED 899 THESIS CONTINUUM (1)**

## **SOCIAL SCIENCE (SOSC)**

**SOSC 600 INTERDISCIPLINARY APPROACHES TO GLOBAL PROBLEMS (3)** Interdisciplinary approaches to global problems; comparative frameworks; issues include economic integration, urbanization, environment.

**SOSC 601 THE GEOGRAPHER'S VIEW (3)** The role of geography within the social sciences through an exploration of recent trends in the discipline.

**SOSC 602 COMPARATIVE HISTORY AND HISTORIOGRAPHY (3)** Examination of selected topics in comparative history, including consideration of the developed and

less developed world. Exploration of competing approaches and leading historiographical issues.

**SOSC 603 THE ECONOMIST'S PERSPECTIVE (3)** Use of economic concepts and tools (such as cost and benefit, supply and demand) to facilitate logical thinking about complex social issues and, therefore, to promote understanding of society and of other social sciences.

**SOSC 605 AMERICAN POLITICS IN THE 21ST CENTURY (3)** The course will constitute the political science department's core offering to the Master of Science degree in Social Science. It will address the change and continuity in American politics and American political science in the last 50 years.

**SOSC 606 SOCIOLOGICAL INSIGHT (3)** Theories, methods and substantive issues in sociology. Consideration of recent advances in sociological research.

**SOSC 609 DEVELOPMENTAL HUMAN LEARNING: A LIFESPAN APPROACH (3)** Provides graduate students with basic theories, historical development and application of scientific methods to human learning.

**SOSC 611 SOCIOLOGICAL INSIGHT (3)** Theories, methods and substantive issues in sociology. Consideration of recent advances in sociological research.

**SOSC 787 DIRECTED INDIVIDUAL READINGS IN SOCIAL SCIENCES (1-6)** Individual readings on a social science topic. May be repeated for a maximum of 6 credits contingent upon certain restrictions if thesis or non-thesis track. Check with department. Prerequisites: Graduate standing and 28 credits of SOSC core courses.

**SOSC 797 DIRECTED INDIVIDUAL RESEARCH IN SOCIAL SCIENCE (3)** Research and reading with a social science topic to be selected by the instructor and the student. No more than 6 credits may be applied

toward a degree. Prerequisites: Graduate standing and 18 credits of SOSC core courses.

**SOSC 897 MASTER'S THESIS (6)** Thesis research in social science. Prerequisite: Permit from graduate program director.

**SOSC 898 MASTER'S THESIS (3)** Thesis research in social science. Will take this course two consecutive semesters. Prerequisite: Permit from graduate program director.

**SOSC 899 MASTER'S THESIS CONTINUUM (1)** Continuation of thesis work. Prerequisite: 6 credits of thesis 898 or 897.

## **SOCIOLOGY (SOCI)**

**SOCI 511 INDIVIDUAL AND SOCIETY (3)** A social psychological approach to the interrelationships of the individual and his/her social and cultural environment; behavioral characteristics resulting from social experience. Prerequisite: SOCI 101.

**SOCI 523 SOCIAL CHANGE (3)** A sociological analysis of the sources, processes and consequences of social change. Prerequisite: SOCI 101.

**SOCI 525 CROWDS, MOBS AND RIOTS (3)** Study of unorganized and organized groups and their impact on society; crowds, mobs, riots and other processes of disruptive and constructive change. Prerequisite: SOCI 101.

**SOCI 527 URBAN SOCIOLOGY (3)** Survey of the theoretical and sociological conceptualizations of modern Western industrial cities. Prerequisite: SOCI 101.

**SOCI 529 DEMOGRAPHY (3)** Social, economic and political problems related to changes, distribution and movement of population; analysis of contemporary population trends in the United States and the world. Prerequisite: SOCI 101.

**SOCI 531 DEVIANCE AND ORGANIZATIONS (3)** Major social patterns associated with contemporary large-scale organizations, with special emphasis on organizational deviance by and within corporations, governments and crime syndicates. Prerequisite: SOCI 101.

**SOCI 533 POLITICAL SOCIOLOGY (3)** Contemporary relevance of the fundamental ideas regarding the relationship of the social and political systems; the significance of social and political democratization; class struggles and revolution; the influence of government bureaucracy. Prerequisite: SOCI 101.

**SOCI 535 MEDICAL SOCIOLOGY (3)** A study of social and cultural perspectives on illness, demographic trends, the health professions, institutions for the delivery of health care services. Prerequisite: SOCI 101.

**SOCI 541 CLASS, STATUS AND POWER (3)** Examination of major theories and significant research on socially structured inequality in modern and traditional societies. Prerequisite: SOCI 101.

**SOCI 543 MINORITY GROUPS (3)** Examination of intergroup life as an aspect of society; conflicts between races, ethnic groups, and minorities; prejudice, segregation and integration. Prerequisite: SOCI 101.

**SOCI 551 DEVIANT BEHAVIOR (3)** Deviance as a process in society. Understanding conformity and deviance; identification and labeling of deviants; and society's response to deviant behavior. Prerequisite: SOCI 101.

**SOCI 553 THEORIES OF CRIME (3)** Evolution of criminological theory; crime rates and trends; social profile of criminal offenders and victims; societal responses. Prerequisite: SOCI 101.

**SOCI 555 DELINQUENCY AND JUVENILE JUSTICE (3)** Nature, distribution and causes of youth crime, youth gangs, the juvenile justice system. Prerequisite: SOCI 101.

**SOCI 556 PRISONS IN AMERICA (3)** Purposes of punishment, incarceration and death penalty; inmate subculture; administration and staff issues. Prerequisite: SOCI 553, SOCI 554 or SOCI 555.

**SOCI 557 SOCIAL WELFARE (3)** Sociological analysis of social welfare institutions and the functions they perform within modern societies. Prerequisite: SOCI 101.

**SOCI 558 SOCIOLOGY OF DEATH, DYING AND BEREAVEMENT (3)** Examination of present social considerations on death, including demographic, attitudinal and ritualistic variables; death education through the life cycle; structure of the grief process; impact of terminal illness on the patient and the family; ethical issues surrounding euthanasia and suicide. Prerequisite: SOCI 101.

**SOCI 559 SOCIAL GERONTOLOGY (3)** Examination of social factors in aging in later life and responses to aging; evaluation of research in social gerontology. Prerequisite: SOCI 101.

**SOCI 560-569 TOPICS IN SOCIOLOGY (3)** Current topics in sociology designed for non-majors as well as majors. May be repeated for credit provided a different topic is covered. The content of the course will depend upon mutual faculty and student interest. Prerequisites: SOCI 101 and 6 additional credits of sociology.

**SOCI 570-579 SPECIAL TOPICS IN SOCIOLOGY (3)** Current topics in sociology at the most specialized level. May be repeated for credit provided a different topic is covered. Prerequisites: SOCI 101 and 6 additional credits of sociology.

**SOCI 581 SOCIOLOGICAL THEORY (3)** Major systems of sociological theory; the works, assumptions, and implications of major European and American schools. Prerequisites: SOCI 101; 9 additional credits of sociology.

**SOCI 582 RESEARCH METHODS (3)** A consideration of methodology of sociological research; the various steps in conducting research projects, from statement of the problem to final analysis of data. Prerequisites: SOCI 101; 9 additional credits of SOCI; either PSYC 212 or MATH 231.

**SOCI 585 SEMINAR IN SOCIOLOGY (3)** Capstone application of ideas, methods, and facts learned in previous sociology courses. Prerequisites: SOCI 101; 9 additional credits of SOCI, and permission of the instructor.

**SOCI 591-592 INTERNSHIP IN SOCIOLOGY I AND II (3, 3)** Supervised experience in work setting which facilitates understanding of roles and relationships relevant to sociological inquiry and application of sociological knowledge. Students may elect to take one semester for 3 credits (591) or two semesters for 3 credits each (591-592), in one agency both semesters or in a different agency each semester. No more than 3 credits may be earned in a semester except with consent of the chair, which will be granted only when agency requirements and student needs make it appropriate. Prerequisite: Consent of internship coordinator.

**SOCI 595 INDEPENDENT RESEARCH (3)** Supervised research and sociological investigation involving library and/or field experiences, and culminating in a written report. Prerequisites: SOCI 581, SOCI 582 and consent of instructor.

## SPANISH (SPAN)

**SPAN 502 SPANISH LINGUISTICS (3)** Linguistic structure of the Spanish language with an introduction to transformational grammar. Conducted in Spanish. Prerequisites: SPAN 301 and SPAN 302, or equivalent.

**SPAN 511 19TH-CENTURY SPANISH NOVEL I (3)** Emphasis will be given to Benito Perez Galdos and Pio Baroja. Conducted

in Spanish. Prerequisite: SPAN 321 or SPAN 322 (not open to students who have completed SPAN 471).

**SPAN 512 CONTEMPORARY SPANISH NOVEL (3)** Emphasis on such writers as Cela, Sender, Delibes and Goytisolo. Conducted in Spanish. Prerequisites: SPAN 321 and SPAN 322, or equivalent (not open to students who have completed SPAN 472).

**SPAN 517 THE GOLDEN AGE IN SPANISH LITERATURE I (3)** Principal attention to Cervantes, Tirso de Molina, Lope de Vega and Ruiz de Alarcon; Gongora and his role. Conducted in Spanish. Prerequisites: SPAN 321 and SPAN 322, or equivalent.

**SPAN 531 19TH-CENTURY SPANISH LITERATURE (3)** The main literary movements of the century: neoclassicism, romanticism, realism, naturalism and special emphasis on "costumbrismo." Conducted in Spanish. Prerequisites: SPAN 321 and SPAN 322, or equivalent.

**SPAN 536 19TH-CENTURY SPANISH AMERICAN LITERATURE II (3)** Principal works of the major writers from 1860 to 1900. Conducted in Spanish. Prerequisites: SPAN 321 and SPAN 322, or equivalent.

**SPAN 544 20TH-CENTURY SPANISH-AMERICAN LITERATURE II (3)** The Contemporary Period. Conducted in Spanish. Prerequisites: SPAN 321 and SPAN 322, or equivalent.

**SPAN 570-579 SPECIAL TOPICS IN SPANISH (3)** Discussion of a central topic with changing emphasis from year to year. Prerequisites: SPAN 321 and SPAN 322, or equivalent.

**SPAN 591-592 DIRECTED READINGS IN SPANISH (1-3)** Reserved for superior students under the guidance of a departmental adviser. Conducted in Spanish. Prerequisite: Graduate standing.

**SPAN 670-679 SPECIAL TOPICS IN SPANISH LANGUAGE: LITERATURE AND CIVILIZATION** (3) Discussion of a central topic with changing emphasis from year to year. Prerequisite: Undergraduate degree in Spanish or consent of department chairperson.

**SPAN 685 SEMINAR IN MODERN LITERATURE** (3) Discussion of a figure or topic in modern Spanish or Spanish-American literature. Prerequisite: Undergraduate degree in Spanish or consent of department chairperson.

## **SPECIAL EDUCATION (SPED)**

**SPED 502 CURRICULUM/METHODS OF INCLUSION** (3) Designing and implementing inclusive programs. Prerequisite: SPED 301.

**SPED 515 ASSESSMENT OF INFANT/PRIMARY STUDENTS WITH DISABILITIES** (3) Comprehensive assessment of young children and linking evaluative information to inclusive programming. Prerequisite: SPED 425/525.

**SPED 517 COLLABORATIVE PLANNING FOR INFANT/PRIMARY PROGRAMS** (3) Methods and models of interdisciplinary collaborative planning for young children with disabilities. Prerequisite: SPED 301.

**SPED 525 FORMAL TESTS AND MEASUREMENTS FOR STUDENTS WITH DISABILITIES K-12** (3) Assessment techniques, philosophical rationale, current research, and intervention strategies for mildly and moderately handicapped children. Prerequisites: 6 credits of psychology and 9 credits of special education, or consent of instructor.

**SPED 527 CURRICULUM/METHODS OF SOCIAL, EMOTIONAL AND MOTOR DEVELOPMENT FOR STUDENTS WITH DISABILITIES K-12** (3) Curriculum theory, research, and instructional techniques for

student with disabilities. Prerequisite: 6 credits of special education or consent of instructor.

**SPED 531 CURRICULUM AND METHODS OF READING FOR PRIMARY STUDENTS WITH DISABILITIES** (3) Reading practices, context, procedures, materials and assessment for primary students with disabilities. Prerequisite: SPED 301.

**SPED 551 PSYCHOEDUCATIONAL ASSESSMENT OF STUDENTS WITH DISABILITIES ELEMENTARY/MIDDLE SCHOOL** (3) Assessment and intervention for cognitive, educational, emotional and social behaviors of students with disabilities (Special permit required). Prerequisites: SPED 301, 425/525/430.

**SPED 553 CURRICULUM AND METHODS OF SECONDARY SPECIAL EDUCATION PREVOCATIONAL AND VOCATIONAL INSTRUCTION** (3) Issues and trends including transition-related instruction, post-secondary programs and adaptability in secondary classrooms. Prerequisites: SPED 301, SCED 357 and MATH 423 or SCIE 380, or permission of the instructor.

**SPED 555 ASSESSMENT OF MIDDLE AND HIGH SCHOOL STUDENTS WITH DISABILITIES** (3) Diagnosis and prescriptive techniques used by secondary level special education professionals. Prerequisite: SPED 301.

**SPED 601 CURRICULUM AND METHODS OF INSTRUCTION FOR SECONDARY TRANSITION** (3) Practical application of legal requirements for preparing students with disabilities for transition into employment, post-secondary, and adult settings, including prevocational and vocational methodologies, student centered planning and interagency linkages. Prerequisite: SPED 301 or consent of instructor.

**SPED 603 INFORMAL TESTS AND MEASUREMENTS FOR STUDENTS WITH DISABILITIES K-12** (3) Assessment, diagno-

sis, prescriptive techniques; procedures, administration, interpretation and programming. Prerequisites: SPED 301 and consent of department.

**SPED 605 WORKING WITH FAMILIES OF STUDENTS WITH DISABILITIES (3)** Communication skills, human relations, parent counseling and conferencing. Prerequisites: SPED 301 and consent of department.

**SPED 607 CURRICULUM/METHODS OF CLASSROOM MANAGEMENT FOR STUDENTS WITH DISABILITIES (K-12) (3)** Theoretical foundations and development of practical intervention. Prerequisites: SPED 301 and consent of instructor.

**SPED 613 ASSISTIVE TECHNOLOGY FOR STUDENTS WITH DISABILITIES K-12 (3)** Designing instruction for students with disabilities using assistive and instructional technology. Prerequisites: SPED 301 and ISTC 201, or equivalent.

**SPED 635 LEGAL FOUNDATIONS OF SPECIAL EDUCATION (3)** Overview of litigated and legislated standards for special education services for students with disabilities and implications for current practices. Prerequisite: Student teaching or teaching experience or consent of instructor.

**SPED 637 INCLUSION FOR THE CLASSROOM TEACHER (3)** Background and legal bases, programs, methods and materials for special-needs children, and emphasis on the regular classroom. Prerequisite: Student teaching or consent of instructor.

**SPED 640 CHARACTERISTICS OF DIVERSE LEARNERS (3)** Survey of individual differences in learning and characteristics of students with special needs with implications for inclusive educators: basic principles and major findings of research. Prerequisite: Student teaching or teaching experience or consent of instructor.

**SPED 641 CURRICULUM/METHODS OF INSTRUCTION FOR STUDENTS WITH DISABILITIES (K-12) (3)** Characteristics that affect learning, and the design of educational programs. (Observation in appropriate setting and guest lecturers in specialty area.) Prerequisites: 6 credits in psychology and 6 credits in education.

**SPED 646 USING TECHNOLOGY TO DIFFERENTIATE INSTRUCTION (3)** Practical application of best practices differentiating instruction, using computer software to increase the access and learning of students with disabilities in general education curriculum. Prerequisite: Student teaching or teaching experience or consent of instructor.

**SPED 670-679 SPECIAL TOPICS IN SPECIAL EDUCATION (1-3)** Studies in selected content areas tailored to student needs. Prerequisites: Vary according to area of concentration; consent of department.

**SPED 741 INTERNSHIP — STUDENTS WITH DISABILITIES (3 OR 6)** Placement in a special education facility or special education agency according to student interest and background. Prerequisites: 12 credits in special education and consent of department.

## **SPEECH-LANGUAGE PATHOLOGY (SPPA)**

**SPPA 509 INTRODUCTION TO DEAF-BLINDNESS (2)** An orientation to the lives of people with both hearing and vision loss. Includes methods for communicating, techniques for guiding, and information on assistive technology. Prerequisites: SPPA 205, 206 and 345/545.

**SPPA 525 INTRODUCTION TO AURAL REHABILITATION (3)** Options available for managing children and adults who are deaf or hard of hearing. Early intervention, communication strategies, amplification op-

tions and psychosocial issues. Prerequisite: SPPA 321 and/or consent of the department.

**SPPA 545 PSYCHOSOCIAL ASPECTS OF DEAFNESS (3)** Educational, legal, philosophical, cultural and political influences relating to the deaf/hard of hearing. Impact of pre-lingual and post-lingual deafness on an individual's social and psychological functioning. Prerequisite: SPPA 205 and/or consent of the department.

**SPPA 600 LANGUAGE DEVELOPMENT AND DISORDERS FROM BIRTH THROUGH PRESCHOOL (3)** Theoretical and applied aspects of normal, delayed and disordered language development in children ages 0 to 5. Family-centered assessment and intervention practices. Prerequisite: Graduate standing in the Speech Language Pathology program and/or consent of department.

**SPPA 604 NEUROLOGICALLY BASED LANGUAGE DISORDERS (3)** Neuroanatomical models regarding language function, theories concerning brain function and localization of lesion following cerebral vascular accident and/or degeneration. Assessment and treatment of language deficits. Prerequisite: Graduate standing and/or consent of department.

**SPPA 606 LANGUAGE DEVELOPMENT AND DISORDERS IN SCHOOL-AGE CHILDREN (3)** Theoretical and applied aspects of normal and disordered language and literacy development in school age children will be reviewed. Best practices for assessment and intervention within this age group. Prerequisite: Graduate standing in the Speech Language Pathology program and/or consent of department.

**SPPA 610 PHONOLOGY AND ARTICULATION (3)** Universal phonological principles and linguistic analysis. Assessment and treatment of phonological and articulation disorders. Prerequisite: Graduate standing and/or consent of department.

**SPPA 614 FLUENCY DISORDERS (3)** Information on the nature of fluency and the etiology and treatment of fluency disorders through the life span. Prerequisite: Graduate standing and/or consent of department.

**SPPA 620 VOICE DISORDERS IN CHILDREN AND ADULTS (3)** Anatomy and physiology of the vocal mechanism with discussion and identification of abnormal voice qualities. Techniques of treatment and counseling of clients with organic and functional voice disorders. Prerequisite: Graduate standing and/or consent of department.

**SPPA 622 DIAGNOSTIC PROCESS IN SPEECH-LANGUAGE PATHOLOGY (3)** The diagnostic process in communication disorders of children and adults will include aspects of the process from a philosophy of assessment and information gathering to tools of assessment and individualized treatment planning. Prerequisite: Graduate standing and/or consent of department.

**SPPA 626 NEUROLOGICALLY BASED SPEECH DISORDERS (3)** Neuroanatomical models regarding speech motor control, theories concerning brain function and localization of neurologic deficits following trauma or degeneration, and assessment and treatment of neurologically based speech disorders. Prerequisite: Graduate standing and/or consent of department.

**SPPA 628 DYSPHAGIA (3)** Anatomy and physiology of normal and abnormal swallowing. Etiology, assessment and treatment of swallowing disorders. Prerequisites: Graduate standing in the Speech Language Pathology program and completed SPPA 626, and/or consent of department.

**SPPA 634 COMMUNICATION DISORDERS OF MULTI-HANDICAPPED CHILDREN (2)** Causes and characteristics of multi-handicapping conditions and communication assessment/intervention strategies for children (0-21 years). The role of the speech-language pathologist and audiologist

on the interdisciplinary team. Prerequisites: Graduate standing and consent of department.

**SPPA 690 CLINICAL PRACTICUM ON-CAMPUS (3)** Supervised clinical experience in the university clinical facility with children and adults who have communication impairments. Prerequisites: Completed communication screening, SPPA 416 (or equivalent documentation of a minimum of 25 hours observation); graduate standing and/or consent of department.

**SPPA 705 PROFESSIONAL ISSUES IN SPEECH-LANGUAGE PATHOLOGY AND AUDIOLOGY (2)** Organization, administration, accreditation and evaluation of speech-language pathology and audiology programs in universities, schools and other settings. Professional roles of direct clinical service across life span and consultation. Federal and state laws related to the special education process and licensure will be presented. Prerequisite: Graduate standing in the Speech Language Pathology program and/or consent of department.

**SPPA 710 WRITTEN LANGUAGE DEVELOPMENT AND DISORDERS (3)** Language theory and application for the development of written language skills in children. Assessment and intervention within the context of the curriculum. Prerequisites: Graduate standing in the Speech Language Pathology program, SPPA 600 and/or consent of department.

**SPPA 713 SEMINAR: RESEARCH DESIGN IN SPPA (3)** Scientific method as applied to research; evaluation of research designs; development and implementation of a research project; and organization, analysis and presentation of data. Prerequisite: Graduate standing and/or consent of department.

**SPPA 714 AUGMENTATIVE AND ALTERNATIVE COMMUNICATION (2)** Compensatory or augmentative use of various nonspeech communication modes with

persons whose impairments prevent effective verbal communication. Prerequisite: Graduate standing and/or consent of department.

**SPPA 745 ADVANCED CLINICAL PRACTICUM ON-CAMPUS (3)** Supervised practicum experience includes the evaluation and treatment of various types of speech and language disorders. Prerequisite: SPPA 690 and/or consent of department.

**SPPA 746 ADVANCED CLINICAL PRACTICUM OFF-CAMPUS (3)** Advanced clinical practice in the identification, assessment, and treatment of various types of speech and language disorders in programs affiliated with TU Department of Communication Sciences and Disorders. Prerequisites: SPPA 745, GPA of  $\geq 3.00$ , 75 graduate practicum clock hours, a minimum of 18 credits of course work exclusive of clinical practicum and/or consent of department.

**SPPA 747 ADVANCED CLINICAL PRACTICUM IN SCHOOLS (3)** Advanced clinical practicum in school programs affiliated with TU for graduate students in speech-language pathology. The experience includes the evaluation and treatment of various types of speech and language disorders. Prerequisites: SPPA 745, GPA of  $\geq 3.00$ , 75 graduate practicum clock hours, a minimum of 18 credits of course work exclusive of clinical practicum and/or consent of department.

**SPPA 748 ADVANCED PEDIATRIC PRACTICUM (3)** Advanced clinical practice in the identification, assessment and treatment of various types of speech and language disorders in pediatric programs affiliated with the Department of Communication Sciences and Disorders. Prerequisites: SPPA 745, GPA of  $\geq 3.00$ , 75 graduate practicum clock hours, a minimum of 18 credits of course work exclusive of clinical practicum and/or consent of department.

**SPPA 796 INDEPENDENT STUDY IN SPEECH-LANGUAGE PATHOLOGY (1-3)**



Investigation in selected area of speech-language pathology. Prerequisite: Graduate standing and/or consent of department.

**SPPA 797 DIRECTED READINGS IN SPEECH-LANGUAGE PATHOLOGY (1-3)** Readings in a particular topic in speech-language pathology. Prerequisite: Graduate standing and/or consent of department.

**SPPA 798 ADVANCED CLINICAL PRACTICUM CONTINUUM ON-CAMPUS (3)** Advanced clinical practicum for students in the Speech-Language Pathology Program continuing in on-campus practicum experiences previously taken for credit. Supervised practicum experience includes the evaluation and treatment of various types of speech and language disorders. Prerequisite: SPPA 745 and/or consent of the department.

**SPPA 799 CLINICAL PRACTICUM CONTINUUM OFF-CAMPUS (3)** Advanced clinical practicum for students in the Speech-Language Pathology Program continuing in off-campus experiences previously taken for credit. Supervised practicum experience includes the evaluation and treatment of various types of speech and language disorders. Prerequisite: Prior off-campus practicum placement and/or consent of department.

**SPPA 897 THESIS (6)** Original investigation using an acceptable research method and design conducted under the direction of a faculty committee. Prerequisite: SPPA 713.

**SPPA 898 THESIS (3)** The previous course SPPA 897, taken over two consecutive semesters.

**SPPA 899 THESIS CONTINUUM (1)**

## **THEATRE ARTS (THEA)**

**THEA 580 ADVANCED COSTUME DESIGN STUDIO (1-9)** Independent studio in costume, scenery or lighting design. May be repeated for a maximum of 9 credits. Prerequisite: Consent of instructor.

**THEA 591 PRODUCTION DRAMATURGY (1-3)** Practical experience in production dramaturgy, includes research, text analysis and educational outreach. Projects related to specific theatrical productions. May be repeated for a maximum of 9 credits. Prerequisites: THEA 125; at least one of THEA 211, 212 and 213; and permission of instructor

**THEA 593 ADVANCED STUDY IN THEATRE (1-9)** Independent study of an academic or creative nature, for majors only. May be repeated for a maximum of 9 credits. Prerequisite: Approval of plan of study by instructor and director of theatre.

**THEA 601 DRAMATURGY: INTERDISCIPLINARY (3)** Investigation of the theory and techniques of combining disciplines for performance. Considerations of the issues of interdisciplinary performance.

**THEA 602 DRAMATURGY: INTERCULTURAL (3)** Investigation of the theory and techniques of theatrical performance in various cultures, as well as forms which incorporate a variety of cultural practices. Consideration of the issues of intercultural performance.

**THEA 603 PERFORMANCE: SOLO (1-4)** Creating solo performance by exploring language and environment through a variety of traditions, styles and techniques. May be repeated for up to 12 credits. Prerequisite: Consent of graduate program director.

**THEA 604 GRADUATE COSTUME DESIGN I (2 OR 4)** Costume design through integrated seminars with directors, actors and designers to create original styles for productions. Prerequisite: Consent of instructor.

**THEA 605 PERFORMANCE: ENSEMBLE (1-4)** Creating collaborative performance by exploring language and environment through a variety of traditions, styles and techniques. May be repeated for up to 12 credits. Prerequisite: Consent of graduate program director.

**THEA 607 SELF-EMPOWERMENT IN THEATRE (3)** Entrepreneurial management strategies for a self-empowered life in theatre. Prerequisite: Consent of program director.

**THEA 608 THEATRE DESIGN TECHNIQUES (3)** The vocabulary and background needed to develop and communicate design concepts, to work collaboratively with other design artists, and to understand the needs of designing for different sizes and types of venues. Prerequisite: Approval of instructor.

**THEA 609 TEXT CONSTRUCTION (3)** Exploring a variety of means of developing theatrical text, with special attention to the relationship of language and structure. Prerequisite: Permission of instructor.

**THEA 610 THEATRE SYSTEMS (3)** A practical overview of technology. Prerequisite: Theatre graduate student; undergraduate: permission of instructor.

**THEA 675 RESEARCH METHODS (3)** Examining the text and context of performance, using a variety of theoretical methodologies. Prerequisite: Consent of instructor.

**THEA 680-683 SPECIAL TOPICS (1-4)** In-depth study in a selected area dependent upon faculty and student interest. May be repeated for a total of no more than 16 credits. Prerequisite: Consent of instructor.

**THEA 695 INDEPENDENT PROJECT IN THEATRE (1-9)** Independent project in research, acting, directing or theatre production. May be repeated for a maximum of 9 credits. Prerequisite: Consent of instructor.

**THEA 710 TEACHING INTERNSHIP (3)** Assisting a faculty mentor with the teaching of an undergraduate theatre course. Prerequisites: Consent of department chairperson, graduate program director and instructor.

**THEA 720 GRADUATE DIRECTING (3)** Development of directorial vision, emphasizing

collaborative style and advanced problem solving including a directing activity.

**THEA 740 GRADUATE PROJECT LABORATORY (1-4)** Conceptualization, research and development of a graduate performance project. May be repeated for a total of no more than 16 credits. Prerequisite: Consent of graduate program director.

**THEA 750 GRADUATE PROJECT AND PERFORMANCE (1-4)** Execution of a graduate performance project. May be repeated for a total of no more than 16 credits. Prerequisite: Consent of graduate program director.

**THEA 760 INTEGRATED SEMINAR (3)** Working with guest artists to understand and apply specific theatrical aesthetics. May be repeated for a total of no more than 12 credits. Prerequisite: Consent of graduate program director.

**THEA 880 FINAL PROJECT (1-6)** Culminating creative process that includes a research paper, and may include a production or project component.

**THEA 885 PROJECT CONTINUATION (1)** Continuation of graduate project. Prerequisite: Previous registration of project work.

## WOMEN'S STUDIES (WMST)

**WMST 532 WOMEN'S CULTURE AND CREATIVITY (3)** Study of the historical conditions influencing women's creativity, the nature of women's aesthetic achievements, and the emergence of new female cultural and artistic traditions. Prerequisite: WMST 231 or 232, or permission of instructor.

**WMST 533 WOMEN AND AGING (3)** American society's view of older women and the impact of stereotypes and images on their self-concepts. Prerequisite: 3 credits in women's studies or social sciences.

**WMST 535 WOMEN, WORK AND FAMILY**

(3) Women's work examined historically and cross-culturally from an interdisciplinary perspective. Women's work in traditional societies, effect of industrialization on women's work in contemporary societies. Prerequisite: 3 credits in social science or history.

**WMST 536 WOMEN AND MEDICINE (3)**

A study of how gender has influenced the structure, content and practice of medicine in the 19th and 20th centuries with emphasis on disease theory and treatment; physicians' involvement in social policy; and focus on the history of nursing, women's entry into medical practice, and women's health movements past and present. Prerequisite: 3 undergraduate credits in women's studies or social sciences.

**WMST 537 FEMINISM (3)**

Examination of feminism as a set of ideas, and the systematic application of those ideas to achieve political, social and economic equality. Prerequisite: 3 credits in social sciences or women's studies.

**WMST 538 WOMEN AND SEXUALITY**

(3) Examination of the politics of sexuality, the interaction between cultural definitions and evaluations of women's attempts to achieve sexual autonomy. Emphasis on how the meaning of sexuality changes over time, how women respond to these changes, and how they affect women. Prerequisite: 3 undergraduate credits in women's studies or social sciences.

**WMST 539 REPRODUCTIVE TECHNOLOGIES AND THE FUTURE OF MOTHERHOOD (3)**

Reproductive science and contraceptive technologies and their effect on contemporary society; focus on ethical and legal issues, and changing definitions of motherhood. Prerequisites: Two science courses, or one math and one science course.

**WMST 570 TOPICS IN WOMEN'S STUDIES (3)**

An interdisciplinary examination of selected issues, themes or topics in women's

studies. Variation in content in different semesters; may be reelected. Prerequisite: One women's studies course or consent of instructor.

**WMST 591 DIRECTED READING IN WOMEN'S STUDIES (1-4)**

Independent reading in women's studies with emphasis on interdisciplinary relationships. Topics selected by student in consultation with the instructor. May be repeated for a maximum of 6 credits. Prerequisites: 15 credits in interdisciplinary or departmental women's studies courses; minimum 3.00 average in women's studies; consent of instructor and of women's studies.

**WMST 601 WOMEN AND GENDER IN THE WORKPLACE (3)**

Examination of the organization of work and the role of gender in the division of labor, power and authority, income and other rewards, in diverse work settings. Prerequisites: WMST 231 or equivalent and graduate standing.

**WMST 602 WOMEN AND COMMUNICATION (3)**

To develop students' written and oral communication skills in the context of research on gender and language, and communication strategies in the workplace. Prerequisites: WMST 231 or equivalent, and graduate standing.

**WMST 603 THE DIVERSITY OF WOMEN (3)**

Examination of feminist scholarship on race, class and sexualities, particularly with regard to the distribution of power within a variety of institutions. Prerequisites: WMST 231 or equivalent, and graduate standing.

**WMST 605 WOMEN IN AN INTERNATIONAL CONTEXT (3)**

Examination of the diverse experiences of women in a variety of national and international contexts. Particular attention will be devoted to how global forces impact women's lives today and the diverse ways that women struggle against inequality. Prerequisites: WMST 231 or equivalent, and graduate standing.

**WMST 607 ADVANCED FEMINIST THEORY (3)** Major feminist theories on women's experience, emphasizing the areas in the graduate concentrations: workplace, health, public policy and international. Prerequisites: WMST 231 or equivalent, and graduate standing.

**WMST 609 APPLIED RESEARCH METHODS AND SKILLS I (3)** How to interpret, evaluate, and conduct research about women and gender issues in organizations and society, using the computer, the Internet, and statistical software for accessing and producing information. Prerequisites: WMST 231 or equivalent, graduate standing, and adequate computer skills.

**WMST 610 APPLIED RESEARCH METHODS AND SKILLS II (3)** Quantitative and qualitative methods, writing research and grant proposals. Prerequisites: WMST 231, WMST 609, graduate standing, or equivalent.

**WMST 611 WOMEN, PUBLIC POLICY, AND SOCIAL CHANGE (3)** How public policy affects the experiences of women and men, and groups to which they belong. Includes study of components of public policy-making, case studies of gender-related public policy, and methods of instituting change. Prerequisites: WMST 231 or equivalent and graduate standing.

**WMST 613 WOMEN AND HEALTH (3)** An interdisciplinary study of women's health from a holistic perspective that builds on socioeconomic, political and biological aspects of women's health. Prerequisites: WMST 231 or equivalent, and graduate standing.

**WMST 615 FIELD EXPERIENCE (3)** Non-culminating field placement for students in organizations or agencies (including governmental) working on projects that serve women. Course includes a proposal, regular meetings with adviser, a journal and a final written report of the project. May be repeated once for a maximum of 6 credits by students

not electing the 796 Internship option; site of placement may not be repeated. Prerequisites: Completion of a minimum of 9 credits toward a master's in WMST and approval of the student's adviser and graduate program director.

**WMST 620 FIELD EXPERIENCE (3)** Non-culminating field placement for students in organizations or agencies (including governmental) working on projects that serve women. Course includes a proposal, regular meetings with adviser a journal and a final written report of the project. May be repeated once for a maximum of 6 credits by student not electing the WMST 796 Internship option; site of placement may not be repeated. Prerequisites: Completion of a minimum of 9 credits toward a master's in WMST and approval of the student's adviser and graduate program director.

**WMST 695 INDEPENDENT STUDY (3)** Study and research including writing a research paper on a selected topic in women's studies. Prerequisites: 15 undergraduate or 9 graduate credits in women's studies; graduate standing and consent of women's studies prior to registration.

**WMST 670-679 SPECIAL TOPICS IN WOMEN'S STUDIES (3)** Topics pertaining to WMST graduate concentration. May be repeated for a maximum of 9 credits. Prerequisites: WMST 231 and graduate standing.

**WMST 796 INTERNSHIP IN WOMEN'S STUDIES (3)** Intensive hands-on experience in approved organization related to student's concentration. Written report required upon completion. Must be taken in two separate semesters for a total of 6 credits. Prerequisites: Minimum of 9 credits completed in graduate program in Women's Studies and consent of student's graduate adviser.

**WMST 897 THESIS (6)** Original research on a topic related to the student's concentration using acceptable research methods and

design. May be based in extensive library, survey or field research. A thesis prospectus detailing the nature and scope of the investigation and the methods to be employed must be submitted and approved in advance to the student's adviser and the graduate director. Students will be required to do an oral presentation of their thesis in a meeting with their graduate adviser and one other WMST faculty. Must be taken in two separate semesters for a total of 6 credits. Prerequisites: Completion of a minimum of 21 credits toward the M.S. in WMST and completion of WMST 609.

**WMST 898 THESIS (3)** The previous course, WMST 897, taken over two consecutive semesters.

**WMST 899 THESIS CONTINUUM (1)**  
Continuation of thesis beyond the 6 credits.



## ADMINISTRATION

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### GRADUATE SCHOOL

#### ADMINISTRATION

JIN KANG GONG

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*Associate Dean, College of Graduate Education and Research*

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MARTIN FREEDMAN

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*Instructional Technology, Ed.D.*

DAVID WIZER

*Instructional Technology*

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LARRY FROMAN/MICHAEL HICKEY

*Organizational Change*

STEPHEN COLLIER

*Physician Assistant Studies*

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*Professional Writing*

BARBARA LASTER

*Reading Education*

GAIL GASPARICH/JOEL SNODGRASS

*Science Education*

SUSAN BARTELS

*School Psychology*

CYNTHIA HARTZLER-MILLER

*Secondary Education*

NICOLE DOMBROWSKI

*Social Science*

AMY PLEET

*Special Education*

SHARON GLENNEN

*Speech-Language Pathology*

DEBORAH PIPER

*Teaching*

THOMAS CASCIERO/JUANITA ROCKWELL

*Theatre*

ESTHER WANGARI

*Women's Studies*

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HEIDI YORK

*Student, Experimental Psychology*

*President, Graduate Students Association*

# GRADUATE FACULTY

## 2004-2005

The date in parenthesis following the listing of each person is the date of first appointment in the university.

- ROBERT M. ADELSON, Assistant Professor, Music; B.M., M.M., Northwestern University (2000)
- DANIEL AGLEY, Associate Professor, Health Science; B.S., M.S., Indiana University; Ed.D., University of Maryland (1971)
- JOHN R. ALEXANDER JR., Professor, Computer and Information Sciences; B.S., Columbia University; M.S., Johns Hopkins University; Ph.D., University of Maryland Graduate School, Baltimore (1976)
- GLEN SCOTT ALLEN, Associate Professor, English; B.S., University of Utah; M.A., Boston University; Ph.D., University of Utah (1992)
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- KAREN ROBERTSON, Professor, Elementary Education; B.S., M.A., The Ohio State University; Ph.D., University of Iowa (1999)
- GERALD D. ROBINSON, Professor, Biological Sciences; B.A., Lock Haven State College; Ph.D., Pennsylvania State University (1977)
- JUANITA ROCKWELL, Professor, Theatre Arts; Graduate Program Director, Theatre; B.A., Colorado College; M.F.A., University of Connecticut (1994)
- PATRICIA ROMERO, Professor, History; B.A., Central State University; M.A., Miami University; Ph.D., The Ohio State University (1989)

- WILLIAM ROSE, Assistant Professor, Mathematics; B.A., Queens College; M.A., University of Illinois (1971)
- RICHARD B. ROSECKY, Professor, Marketing and e-Business; B.S., Drexel University; M.B.A., Wharton Graduate Division, University of Pennsylvania; Ph.D., University of Maryland (1990)
- DONALD L. ROSENBERG, Professor, Accounting; B.S., M.B.A., University of Maryland; M.S., J.D., University of Baltimore; C.P.A., Maryland; C.M.A.; C.D.P. (1984)
- DOUGLAS N. ROSS, Associate Professor, Management; B.A. B.Comm., University of Saskatchewan; M.B.A., University of Denver; Ph.D., University of Colorado (1990)
- DANA ROTHLSBERGER, Associate Professor, Music; Graduate Program Director, Music Education; B.M.Ed., M.M. East Texas State University; Ph.D. University of Maryland, College Park (1983)
- FRANCES ROTHSTEIN, Professor, Sociology, Anthropology and Criminal Justice; B.A., Queens College; Ph.D., University of Pittsburgh (1974)
- JOSEPH R. RUDOLPH JR., Professor, Political Science; B.A., M.A., Ph.D., University of Virginia (1986)
- RODERICK N. RYON, Professor, History; A.B., Western Maryland College; A.M., Ph.D., Pennsylvania State University (1965)
- LEV R. RYZHKOV, Associate Professor, Chemistry; B.S., Stevens Institute of Technology; Ph.D., Brown University (1995)
- WILLIAM A. SADERA, Assistant Professor, Reading, Special Education and Instructional Technology; B.S., City College, City University of New York; M.S., Ph.D., Iowa State University (2000)
- CODY SANDIFER, Assistant Professor, Physics, Astronomy and Geosciences; B.S., California State University; M.S., Purdue University; Ph.D., San Diego State University and the University of California, San Diego (2001)
- DOUG SANFORD, Assistant Professor, Management; B.A., Colgate University; M.A., State University of New York, Buffalo; Ph.D., University of Michigan (2002)
- G. REZA SARHANGI, Associate Professor, Mathematics; Graduate Program Director, Mathematics Education; B.Sc., Pars College, Iran; M.S., Ph.D., Wichita State University (2001)
- STEPHEN SCALES, Associate Professor, Philosophy and Religious Studies; B.A., New School for Social Research; M.A., Ph.D., University of California at San Diego (1995)
- AUBREY G. SCARBROUGH, Professor, Biological Sciences; B.S., M.S., Arkansas State University; Ph.D., University of Illinois (1970)
- DAVID SCHAEFER, Associate Professor, Physics, Astronomy and Geosciences; B.S., Towson State University; M.S., Ph.D., Purdue University (1995)
- ANDREW SCHIFF, Associate Professor, Accounting; B.A., Colgate University; M.S., State University of New York at Albany; M.B.A., Ph.D., Rutgers University; C.P.A., New York (2000)
- CARL B. SCHMIDT, Professor, Music; B.A., Stanford University; M.M., Ph.D., Harvard University (1994)
- CHARLES SCHMITZ, Assistant Professor, Geography and Environmental Planning; B.S., M.A., Ph.D., University of California at Berkeley (1999)
- MYRON I. SCHOLNICK, Professor, History; B.A., American University; M.A., Ph.D., University of Maryland (1967)
- RALPH SCOTT, Professor, Geography and Environmental Planning; B.S., M.S., Florida State University; Ph.D., University of Georgia (1974)
- ERIK P. SCULLY, Professor, Biological Sciences; B.S., Fordham University; Ph.D., University of Rhode Island (1978)
- W. MICHAEL SEGANISH, Associate Professor, Accounting/Business Law; B.S., M.B.A., University of Maryland; J.D., University of Baltimore School of Law (1970)
- RICHARD A. SEIGEL, Professor and Chair, Biological Sciences; B.A., Rutgers University



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- VONNIE D. SHIELDS, Assistant Professor, Biological Sciences; B.Sc., Ph.D., University of Regina (2000)
- NANCY SHELTON, Assistant Professor, Elementary Education; B.A., State University of New York, Albany; M.A., Ph.D., University of Florida (2003)
- KIM SHIFREN, Assistant Professor, Psychology; B.A., University of Maryland, Baltimore County; M.A., Ph.D., Syracuse University (1998)
- BONG JU SHIN, Professor, Economics; B.A., University of Pusan; M.A., Ph.D., The Ohio State University (1966)
- LAWRENCE H. SHIRLEY, Professor, Mathematics, Associate Dean, College of Graduate Education and Research; B.S., California Institute of Technology; M.Ed., University of Illinois; Ph.D., Ahmadu Bello University, Nigeria (1989)
- MARTHA SIEGEL, Professor, Mathematics; B.A., Russell Sage College; M.A., Ph.D., University of Rochester (1971)
- ERIK P. SILLDORFF, Assistant Professor, Biological Sciences; B.A., Ph.D., University of Delaware (1998)
- COLLEEN SINCLAIR, Assistant Professor, Biological Sciences; B.E., University of Dayton; M.S., Oklahoma State University; Ph.D., Mayo Graduate School (2002)
- DANIEL D. SINGER, Professor, Finance; B.S., Rider College; M.S., State University of New York; Ph.D., University of Colorado (1990)
- JAN SINNOTT, Professor, Psychology; B.S., St. Louis University; M.A., Ph.D., The Catholic University (1978)
- ROBERT SMITS, Assistant Professor, Mathematics; B.S., University of Nebraska; Ph.D., Purdue University (1999)
- BILL SMITH, Associate Professor, Management; B.S., University of Nebraska; M.S., Colorado State University; Ph.D., Arizona State University (1988)
- LOUISE W. SMITH, Professor, Marketing and e-Business; B.A., University of Delaware; M.E., M.B.A., Harvard University; Ph.D., University of Maryland (1984)
- WILLIAM P. SMITH, Associate Professor, Management; B.S., University of Nebraska; M.S., Colorado State University; Ph.D., Arizona State University (1988)
- DIANE SMITH-SADAK, Assistant Professor, Theatre Arts; B.A., Union College; M.F.A., Florida State University (1999)
- VERA SMOLYANINOVA, Assistant Professor, Physics, Astronomy and Geosciences; M.Sc., Diploma in Physics and Engineering, Physics and Technology, Russia; Ph.D., University of Maryland, College Park (2002)
- HOUSHANG H. SOHRAB, Professor, Mathematics; B.S., M.A., University of Paris, France; Ph.D., University of California (1984)
- YEONG-TAE SONG, Assistant Professor, Computer and Information Sciences; B.S., Hanyang University; M.S., Ph.D., University of Texas at Dallas (2001)
- JOEL W. SNODGRASS, Assistant Professor, Biological Sciences; Graduate Program Director, Biology and Science Education; B.S., Guilford College; M.S., University of Central Florida; Ph.D., University of Georgia (1999)
- CHRISTOPHER H. SPICER, Dean, College of Fine Arts and Communication; B.A., University of Virginia; M.A., Ph.D., University of Texas at Austin (2003)
- RAJESHWAR P. SRIVASTAVA, Professor, Computer and Information Sciences; M.S.C., Allahabad University, India; M. Math., University of Waterloo; Ph.D., University of Idaho (1986)
- DAVID STAMBLER, Assistant Professor, Music; B.M., University of Michigan; M.M., Peabody Institute of Johns Hopkins University (2001)
- ALLAN E. STARKEY, Visiting Instructor, Secondary Education; B.S., Towson University; M.S., Morgan State University; M.A., Johns Hopkins University (2000)
- PATRICK STEARNS, Assistant Professor, Electronic Media and Film; B.F.A., Ohio University; M.F.A., Howard University; Ph.D., Bowling Green State University (1999)

- LAMONT STEEDLE, Professor and Chair, Accounting; B.S., M.S., Ph.D., Pennsylvania State University; C.M.A., Institute of Management Accounting (1990)
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- NORA STURGES, Assistant Professor, Art; B.A. Bowdoin College; M.F.A., Ohio University (1999)
- BRIDGET Z. SULLIVAN, Associate Professor, Art; B.F.A., Maryland Institute College of Art; M.F.A., Towson State University (1987)
- TERRY SULLIVAN, Lecturer, Reading, Special Education and Instructional Technology; B.A., The Catholic University of America; M.S., Johns Hopkins University (2002)
- TIMOTHY E. SULLIVAN, Associate Professor, Economics; B.A., M.A., Eastern Illinois University; M.S., Ph.D., University of Illinois (1989)
- WEI SUN, Associate Professor, Mathematics; B.A., Northeast Normal University, China; M.A., M.Ed., Ed.D., Columbia University (1996)
- THOMAS G. SUPENSKY, Professor, Art; B.F.A., The Ohio State University; M.Ed., Towson University (1968)
- LOUISE D. SUPNICK, Lecturer, Reading, Special Education and Instructional Technology; B.S., State University of New York at Buffalo; M.A., Teachers College, Columbia University; Professional Diploma, C.W. Post, Long Island University (2000)
- LISA SWANSON, Assistant Professor, Kinesiology; B.A., St. Mary's College of Maryland; M.A., University of North Carolina at Greensboro; Ph.D., University of Maryland, College Park (2000)
- ZOLTAN SZABO, Professor, Music; B.M., M.M., Peabody Conservatory; D.M., Indiana University (1979)
- FILIZ TABAK, Professor, Management; B.S., Istanbul Technical University; M.B.A., Bogazici University, Istanbul; M.S., University of Istanbul; Ph.D., Oklahoma State University (1995)
- SANDRA TATMAN, Assistant Professor, Art; B.A., Ph.D., University of Delaware; M.L.S., University of Oregon (1994)
- DIANNE E. TAYLOR, Associate Professor, Nursing; R.N. Diploma, Union Memorial Hospital School of Nursing; B.S., Southern Connecticut State College; M.S., Yale University; Ed.D., University of Maryland (1979)
- PRECHA THAVIKULWAT, Professor, Management; B.S., Ph.D., University of Minnesota (1988)
- RONALD S. THOMAS, Lecturer, College of Education, Center for Leadership in Education; B.S., M.Ed., Towson State University; Ph.D., University of Maryland at College Park (2001)
- VIRGINIA THOMPSON, Associate Professor, Geography and Environmental Planning; Graduate Program Director, Geography and Environmental Planning; B.A., M.A., University of Missouri; Ph.D., University of Oklahoma (1995)
- JOHN F. TINKLER, Associate Professor, English; Ph.D., Queen's University, Canada (1994)

- JOSEPH J. TOPPING, Professor, Chemistry; B.S., LeMoyne College; M.S., Ph.D., University of New Hampshire (1970)
- GORAN TRAJKOVSKI, Assistant Professor, Computer and Information Sciences; M.S., Ph.D., University of Cyril and Methodius in Skopje (2002)
- JOHN R. TURNER, Associate Professor, Electronic Media and Film; B.S., M.S., West Virginia University; Ph.D., Ohio University (1989)
- LEON UKENS, Professor, Physics, Astronomy and Geosciences; B.S., Fort Hayes Kansas State College; M.S., University of Northern Colorado; Ph.D., New York University (1972)
- JOHN G. VAN OSDELL, Professor, History; B.A., Ph.D., Tulane University (1967)
- DAVID A. VANKO, Professor and Chair, Physics, Astronomy and Geosciences; B.A., M.A., The Johns Hopkins University; Ph.D., Northwestern University (2001)
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- DAVID E. VOCKE, Professor, Secondary Education; B.S., M.S., Miami University; Ph.D., University of Iowa (1989)
- DONNA WAGNER, Professor and Director of Gerontology; Graduate Program Director, Applied Gerontology; B.S., M.S., Ph.D., Portland State University (1997)
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- ESTHER WANGARI, Associate Professor, Women's Studies; Graduate Program Director, Women's Studies; B.A., Warren Wilson College; M.A., Ph.D., The New School for Social Research (1996)
- OCIE WATSON-THOMPSON, Associate Professor, Early Childhood Education; B.S., M.S., Ed.D., University of Alabama (1991)
- DONALD E. WATTS, Assistant Professor, Music; B.M., M.M., University of Kansas; Ph.D., University of Maryland (1973)
- JOHN W. WEBSTER, Associate Professor, Psychology; A.B., Ed.M., Ed.D., Rutgers University (1972)
- MARCIE WEINSTEIN, Associate Professor, Occupational Therapy and Occupational Science; B.S., University of Kansas; M.B.A., University of Baltimore; Ph.D., University of Maryland, Baltimore County (1989)
- DEITRA WENGERT, Professor, Health Science; B.S., Bowie State College; M.Ed., Towson University; Ph.D., University of Maryland (1979)
- EDYTH J. WHEELER, Associate Professor, Early Childhood Education; Graduate Program Director, Early Childhood education; B.A., Duke University; M.Ed., Ph.D., George Mason University (1996)
- EVANGELINE A. WHEELER, Associate Professor, Psychology; B.S., Howard University; Ph.D., University of California at Berkeley (1994)
- MARK I. WHITMAN, Professor, History; B.A., Dartmouth College; M.A., Ph.D., Harvard University (1967)
- ALEXANDER L. WIJESINHA, Assistant Professor, Computer and Information Sciences; M.S., University of Florida; Ph.D., University of Maryland, Baltimore County (1996)
- JACQUELINE WILKOTZ, Professor, English; A.B., M.A., Ph.D., University of California at Berkeley (1973)
- LAURIE C. WILLIAMS-HOGARTH, Assistant Professor, Biological Sciences; B.S., Georgetown University, Ph.D., Howard University (1999)
- PATRICIA S. WILLINGER, Lecturer, Reading, Special Education and Instructional Technology; B.S., M.A., Towson University (2000)
- G. PATRICIA WILSON, Assistant Professor, Early Childhood Education; B.S., St. Joseph's College; M.S., Ph.D., University of New Hampshire (1999)
- NANCY W. WILTZ, Assistant Professor, Early Childhood Education; B.S., University of Missouri; M.A., Ph.D., University of Maryland, College Park (1999)

- LAWRENCE E. WIMMERS, Associate Professor, Biological Sciences; B.S., University of Dayton; Ph.D., Cornell University (1995)
- ALAN S. WINGROVE, Professor, Chemistry; B.S., University of California at Berkeley; Ph.D., University of California at Los Angeles (1973)
- DAVID R. WIZER, Associate Professor, Reading, Special Education and Instructional Technology; Graduate Program Director, Instructional Technology; B.A., Rider College; M.A., Ph.D., University of Maryland (1997)
- JANE L. WOLFSON, Associate Professor, Biological Sciences; Graduate Program Director, Environmental Science; B.A., Cornell University; Ph.D., State University of New York at Stony Brook (1998)
- CHERYL E. WOOD, Lecturer, Department of Reading, Special Education and Instructional Technology; B.A., Virginia Polytechnic Institute and State University; M.Ed., Towson University (1999)
- GARY WOOD, Associate Professor, English; B.A. Westminster College; M.A., Ph.D., University of Pittsburgh (1971)
- JENNIFER WOOD, Assistant Professor, Mass Communication and Communication Studies; B.A., Rockhurst College; M.A., Webster University; Ph.D., Bowling Green State University (1999)
- DONN WORGS, Assistant Professor, Political Science; B.A., Lehigh University; M.A., University of Delaware; Ph.D., University of Maryland
- TAMARA WOROBY, Professor, Economics; B.A., University of Regina; M.A., Ph.D., Queens University, Ontario, Canada (1978)
- D'LISA WORTHY, Lecturer, Reading, Special Education and Instructional Technology; B.A., State University of Binghamton, N.Y.; M.S., Pennsylvania State University (2002)
- MAUREEN YARNEVICH, Associate Professor, Mathematics; B.S., University of Hartford; M.S., Ph.D., American University (1994)
- GEWEI YE, Assistant Professor, Marketing and e-Business; B.S., East China Normal University; M.S., Ohio University; Ph.D., Tilburg University (2003)
- JUNE YUM, Associate Professor, Mass Communication and Communication Studies; B.A., Seoul National University; M.A., University of Hawaii; Ph.D., University of Southern California (1989)
- DAVID ZANG, Associate Professor, Kinesiology; B.A., Wittenburg; M.S., Pennsylvania State University; Ph.D., University of Maryland (1995)
- H. HARRY ZHOU, Professor, Computer and Information Sciences; M.S., Ph.D., Vanderbilt University (1989)
- MARIUS ZIMAND, Associate Professor, Computer and Information Sciences; Ph.D., University of Bucharest; Ph.D., University of Rochester.
- JAY J. ZIMMERMAN, Professor, Mathematics; B.A., Knox College; M.S., Ph.D., University of Illinois (1989)
- STANLEY ZWEBACK, Associate Professor, Psychology; B.A., The College of New Jersey; M.Ed., Rutgers University; Ph.D., University of Maryland (1970)

# Appendix A

## CAMPUS FACILITIES

### ACADEMIC BUILDINGS

**STEPHENS HALL** - This distinctive Jacobean building, constructed in 1914, has long been a landmark in the Baltimore area. Departmental and faculty offices as well as classrooms and laboratories of the College of Business and Economics and the Department of Mathematics are housed in this building. A 733-seat theater capable of supporting light opera and musicals is also located in Stephens Hall.

**VAN BOKKELEN HALL** - A classroom building for the departments of Communication Sciences and Disorders and Mass Communication and Communication Studies, this facility contains therapy rooms for speech-language pathology and audiology majors, as well as a production studio for rehearsing radio and television broadcasts.

**LINTHICUM HALL** - One of the largest classroom buildings on campus, it houses the departments of English; Modern Languages; History; Philosophy and Religious Studies; Geography and Environmental Planning; Sociology, Anthropology and Criminal Justice; Political Science and associated offices.

**SMITH HALL** - First occupied in 1965, the building was expanded in 1976 to 223,285 square feet to house the departments of Biological Sciences; Chemistry; and Physics, Astronomy and Geosciences. Included are a state-of-the-art Nanotechnology Center, plant growth chambers, greenhouses, reach-in environmental chambers, an aquarium room with an aquatron, and controlled environmental animal rooms, in addition to various classrooms and class laboratories. The Watson-King Planetarium is on the top floor.

**BURDICK HALL** - Completed in 1968, it houses the departments of Nursing, Health Science and Dance. It contains a fitness cen-

ter, facilities for intramural sports, an Olympic-sized swimming pool, classrooms, dance studios and gymnasiums.

**TOWSON SPORTS COMPLEX** - The 24-acre sports complex includes the Towson Center, the 11,000-seat Johnny Unitas Stadium, Minnegan Field, tennis courts with lighting, and separate fields for football, lacrosse, soccer, field hockey and softball. The Towson Center arena seats 5,000 people for athletic events, concerts and lectures. The Kinesiology and Athletics departments are located in the Towson Center. The building also has classrooms, a research laboratory, a curriculum center, student and faculty lounges, indoor archery and golf ranges, weight rooms, training areas and facilities, fencing, wrestling and gymnastic rooms, open teaching areas, locker rooms, team rooms, a fitness center, handball courts and squash courts.

**LIDA LEE TALL** - This building houses the offices, classrooms and laboratories of the Department of Occupational Therapy and Occupational Science and the Student Day Care Center.

**ALBERT S. COOK LIBRARY** - Built in 1969, the five-story library contains 547,000 volumes, 790,000 microform units, and over 2,400 periodical subscriptions. Towson's long history is reflected in the extensive collections of bound volumes, reference works, and substantial holdings on microfilm. The Computing Services Help Center is located on the ground floor.

**MEDIA CENTER** - This building houses the campus radio station, XTSR-FM, the campus TV station, WMJF-TV, the English Language Center and radio and TV production labs.

**CENTER FOR THE ARTS** - Currently under renovation, the Center for the Arts houses the departments of Art, Music and Theatre Arts, as well as a main stage theatre, a studio theatre, the Harold J. Kaplan Concert Hall, the Holtzman Art Gallery and the Asian Arts & Culture Center, which displays the university's extensive Asian art collection.

**HAWKINS HALL** - Part of a three-building complex, it houses the Elementary, Secondary and Early Childhood Education departments. Named for former president Earle T. Hawkins, it also houses the Education Technology Center.

**PSYCHOLOGY BUILDING** - Part of the three-building complex that contains Hawkins Hall, it houses the Department of Psychology, learning laboratories, animal laboratories, statistics laboratories and an auditorium.

**LECTURE HALL** - Part of the three-building complex that contains Hawkins Hall and the Psychology Building, it houses the Academic Advising Center.

## OTHER BUILDINGS

**UNIVERSITY UNION** - The three-story University Union is the social hub of the campus. Educational, cultural and social programs at the Union are designed to appeal to the entire campus community. The Union's services and facilities include: a full-service post office, the University Store, the Ticket Office, Cash Office, Auxiliary Services Business Office, Paws Cyber Cafe, Art Services, Auxiliary Services administrative offices, a full-service bank and two ATMs, dining facilities, SGA offices, Information Desk, Event and Conferences Services, Student Activities, Campus Ministries, Women's Center, an art gallery, the African American Cultural Center, Orientation and New Student Programs, SAGE, *The Towerlight* student newspaper office, and Tiger Reels video rental.

**ADMINISTRATION BUILDING** - Located at 7720 York Road, this building houses most of the executive and administrative offices of the university.

**7800 YORK ROAD** - Newly reopened, this building is the home of the College of Graduate Education and Research. It also houses the College of Extended Programs, the Career Center, the Department of Computer and Information Sciences, and other facilities.

**DOWELL HEALTH CENTER** - The Dowell Health Center is an outpatient primary

health care clinic with an experienced staff of physicians, nurse practitioners, physician's assistants, nurses and health educators. All registered students, including part-time and graduate students, are eligible to use health center services.

**ENROLLMENT SERVICES CENTER** - This building houses student services including Admissions, Enrollment Services, Financial Aid and the Bursar's Office.

**THE BURKSHIRE AT TOWSON UNIVERSITY** - Adjacent to campus is an 18-story apartment community for upper-level undergraduate and graduate students.

**GLEN ESK** - The Counseling Center, which provides a variety of counseling and psychological services to students, faculty and staff, is housed here.

## Appendix B

### THE FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT (FERPA, a.k.a. Buckley Amendment)

The Family Educational Rights and Privacy Act of 1974, as revised, is a federal law requiring the institution to maintain the confidentiality of student educational records. This law states that a) a written institutional policy must be established and b) a statement of adopted procedures covering the privacy of students be made available. The university has taken the appropriate steps to comply with this law.

Towson University accords all the rights under the law to students who have reached the age of majority. Information may be released to parents who have established students' dependency as defined by the Internal Revenue Code of 1954, Section 152. The Judicial Affairs office will review the parent's claim of dependency and notify students of the claim prior to release of any academic information. Except as permitted under the Act, no one outside the institution will have access to any information from students' education records without their written consent. Those permitted access under the Act

include personnel within the institution, officials of other institutions in which students seek to enroll, persons or organizations providing financial aid, accrediting agencies, persons in compliance with a judicial order, and persons acting in an emergency situation to protect the health or safety of others.

Within the Towson University community, only those individuals acting in students' educational interest are allowed access to student education records. These include personnel in the offices of Admissions, Academic Advising, Enrollment Services, Bursar, Financial Aid, and other academic personnel within the limitations of their need to know. The director of Enrollment Services may grant access to education records for other legitimate reasons permitted under the Act.

The university may provide Directory Information in accordance with the provisions of the Act without the written consent of students. Directory Information includes student name, address, telephone number(s), date and country of birth and country of citizenship, major field of study, dates of attendance, degrees and awards received, the most recent previous educational institution attended by students, participation in officially recognized activities and sports, and the weight and height of members of athletic teams. Enrollment Services will release Directory Information at its discretion and may release it over the telephone or in writing. Students may withhold Directory Information by notifying Enrollment Services in writing within two weeks after the first day of classes.

Requests for non-disclosure will be honored for only one academic year; thereafter, authorization to withhold Directory Information must be filed annually with the director of Enrollment Services.

The Act also provides students with the right to inspect and review information contained in their education records. The director of Enrollment Services at Towson University has been designated to coordinate the inspection and review of student education records. Students wishing to review their education records must make written requests

to the Records Office. Records covered by the Act will be made available within 30 days of the request. Students may have copies made of their records at their expense with certain exceptions (e.g., copies of the original or source document that exists elsewhere or when students have an outstanding financial obligation to the university). Education records do not necessarily include records of instructional, administrative, or educational personnel, which are the sole possession of the makers. Health records, employment records, or alumni records will not be released to students but may be reviewed by them or by physicians of their choosing.

FERPA does not allow students to inspect and review the following: financial information submitted by their parents, confidential letters and recommendations associated with admissions, employment or job placement, or honors to which they have waived their rights of inspection and review. Education records containing information about more than one student are restricted, and the institution will permit access only to that part of the records that pertains to the individual student. The institution will not permit students to inspect and review confidential letters and recommendations placed in their files prior to January 1, 1975.

The university has established an appeal mechanism in accordance with the Act. Students who believe their education records contain inaccurate, misleading, or unlawful information may discuss their problems informally with the director of Enrollment Services. If the director agrees with the request, the appropriate records will be amended. If students' requests are denied, they will be notified by the director of the right to a formal hearing.

Requests for formal hearings must be made in writing to the vice president for Student Affairs and associate provost, who will inform students of the date, place and time of the hearing. Students may present evidence and may be assisted or represented at the hearings by counsel. The hearing panel that will adjudicate such challenges may include the vice president for Academic Affairs, the

vice president for Student Affairs and associate provost, the dean of the Graduate School, and the academic dean of students' colleges, or their designees. Decisions of the hearing panel will be final. The findings will be based solely on the evidence presented at the hearing and will consist of written statements summarizing the evidence and stating the reasons for the decisions, and will be delivered to all parties concerned. The education records will be corrected or amended in accordance with the decisions of the hearing panel. Students dissatisfied with the outcome of their hearings may prepare a written statement to be placed in the education records and maintained as part of students' records.

Students who believe the adjudications of the challenges were unfair or not in keeping with the provisions of FERPA may request that the hearing be reviewed by the president of the university. In addition, students who believe their rights have been abridged may file complaints with The Family Educational Rights and Privacy Act office (FERPA), Department of Health, Education, and Welfare, Washington, D.C. 20201, concerning the alleged failures of Towson University to comply with the Act.

Revisions and clarifications of this policy will be published as the law warrants.

## Appendix C

### RESIDENCY POLICY

#### Policy on Student Classification for Admission, Tuition and Charge-Differential Purposes.

(Approved by the Board of Regents August 28, 1990; Amended July 10, 1998; Amended November 27, 2000)

#### I. POLICY

It is the policy of the Board of Regents of the University System of Maryland (USM) to recognize the categories of in-state and out-of-state students for the purpose of admission, tuition, and charge differentials at those institutions where such differentiation has been established.

A. An in-state student is a student who the university determines to be a permanent resident of the state of Maryland. For the purposes of this policy, "permanent resident" is defined as a person who satisfies all the following conditions and has done so for at least twelve (12) consecutive months immediately prior to and including the last date available to register for courses in the semester/term for which the person seeks in-state status:

1. Is not residing in the state of Maryland primarily to attend an educational institution; and
2. Owns and continuously occupies or rents and continuously occupies living quarters in Maryland. There must exist a genuine deed or lease in the individual's name reflecting payments/rents and terms typical of those in the community at the time executed. Persons not having such a lease may submit an affidavit reflecting payments/rents and terms as well as the name and address of the person to whom payments are made which may be considered as meeting this condition. As an alternative to ownership or rental of living quarters in Maryland, a student may share living



- quarters in Maryland which are owned or rented and occupied by a parent, legal guardian or spouse; and
3. Maintains within Maryland substantially all personal property; and
  4. Pays Maryland income tax on all earned taxable income including all taxable income earned outside the state; and
  5. Registers all owned motor vehicles in Maryland in accordance with Maryland law; and
  6. Possesses a valid Maryland driver's license, if licensed, in accordance with Maryland law; and
  7. Is registered in Maryland, if registered to vote; and
  8. Receives no public assistance from a state other than the state of Maryland or from a city, county or municipal agency other than one in Maryland; and
  9. Has a legal ability under federal and Maryland law to live permanently without interruption in Maryland.
- B. In addition, persons with the following status shall be accorded the benefits of in-state status for the period in which they hold such status:
1. A full-time or part-time (at least 50 percent time) regular employee of the University System of Maryland.
  2. The spouse or financially dependent child of a full-time or part-time (at least 50 percent time) regular employee of the USM.
  3. A full-time active member of the armed forces of the United States whose home of residency is Maryland or one who resides or is stationed in Maryland, or the spouse or a financially dependent child of such a person.
  4. For UMUC, a full-time active member of the armed forces of the United States on active duty, or the spouse of a member of the armed forces of the United States on active duty.
  5. A graduate assistant appointed through the University System of Maryland for the semester/term of the appointment. Except through prior arrangement, this benefit is available only for enrollment at the institution awarding the assistantship.
- C. Students not entitled to in-state status under the preceding paragraphs shall be assigned out-of-state status for admission, tuition, and charge-differential purposes.
- D. Assignment of in-state or out-of-state classification will be made by the university upon an assessment of the totality of facts known or presented to it. The person seeking in-state status shall have the burden of proving that he or she satisfies all requirements.
- E. The following circumstances raise a presumption that the student is residing in the state of Maryland primarily for the purpose of attending an educational institution:
1. The student was attending high school or residing outside Maryland at the time of application for admission to a USM institution.
  2. The student is both (a) not financially independent and (b) is financially dependent upon a person not a resident of Maryland.
- The burden shall be on the student to rebut the presumption.

## II. PROCEDURES

- A. An initial determination of in-state status will be made by the university at the time a student's application for admission is under consideration. The determination made at that time, and any determination made thereafter, shall prevail for each semester/term until the determination is successfully challenged in a timely manner.
- B. A change in status must be requested by submitting a USM Petition for Change in Classification for Admission, Tuition and Charge Differential. A student applying for a change to in-state status must furnish all required documentation with the petition by the last published date to register for the forthcoming semester/term for which the change in classification is sought.

- C. The student shall notify the institution in writing within fifteen (15) days of any change in circumstances which may alter in-state status.
  - D. In the event incomplete, false, or misleading information is presented, the institution may, at its discretion, revoke in-state status and take disciplinary action provided for by the institutions policy. Such action may include suspension or expulsion. If in-state status is gained due to false or misleading information, the university reserves the right to retroactively assess all out-of-state charges for each semester/term affected.
  - E. Each institution of the University of Maryland shall develop and publish additional procedures to implement this policy. Procedures shall provide that on request the president or designee has the authority to waive any residency criterion set forth in Section I, if it is determined that the student is indeed a permanent resident and the application of the criteria creates an unjust result. These procedures shall be filed with the Office of the Chancellor.
- state income tax return of any other person; (3) receives less than one-half of his or her support from any other person or persons; and (4) demonstrates that he or she provides through self-generated support one-half or more of his or her total expenses.
- C. Parent: A parent may be a natural parent, or, if established by a court order recognized under the law of the state of Maryland, an adoptive parent.
  - D. Guardian: A guardian is a person so appointed by a court order recognized under the law of the state of Maryland.
  - E. Spouse: A spouse is a partner in a legally contracted marriage.
  - F. Child: A child is a natural child or a child legally adopted pursuant to a court order recognized under the law of Maryland.
  - G. Self-Generated: Self-generated describes income which is derived solely from compensation for an individual's own efforts as evidenced, for example, by federal or state W-2 forms or IRS Form 1099 where interest income is based upon finances created from one's own efforts. For the purpose of this policy, grants, stipends, awards, benefits, loans and gifts (including federal and state aid, grants and loans) may not be used as self-generated income.

### III. DEFINITIONS

- A. Financially Dependent: For the purposes of this policy, a financially dependent student is one who is claimed as a dependent for tax purposes or who receives more than one-half of his or her support from another person during the twelve (12) month period immediately prior to the last published date for registration for the semester or session. If a student receives more than one-half of his or her support in the aggregate from more than one person, the student shall be considered financially dependent on the person providing the greater amount of support.
- B. Financially Independent: A financially independent student is one who (1) declares himself or herself to be financially independent as defined herein; (2) does not appear as a dependent on the federal or
- H. Regular Employee: A regular employee is a person employed by USM who is assigned to a state budget line or who is otherwise eligible to enroll in a state retirement system. Examples of categories NOT considered regular employees are graduate students, contingent employees and independent contractors.

### IV. IMPLEMENTATION PERIOD

This policy, as amended by the Board of Regents on November 27, 2000, shall be applied to all student residency classification decisions made on or after that date.

# Appendix D

## CODE OF CONDUCT

### I. Student Rights and Responsibilities

#### A. Preamble

Academic institutions exist for the transmission of knowledge, the pursuit of truth, the development of students, and the general well being of society. Free inquiry and free expression are indispensable to the attainment of these goals. As members of the academic community, students should be encouraged to develop the capacity for critical judgment and to engage in a sustained and independent search for truth. Freedom to teach and freedom to learn are inseparable facets of academic freedom. The freedom to learn depends upon appropriate opportunities and conditions in the classroom, on the campus, and in the larger community. Students should exercise their freedom with responsibility. The responsibility to secure and respect general conditions conducive to the freedom to learn is shared by all members of the community. The present code is designed to establish policies and procedures which provide and safeguard this freedom.

#### B. Purpose

Towson University's mission to the community at large is one of academic excellence and achievement. To that end, its campus community must be one wherein respect for the individual pursuit of academic excellence and achievement is given priority. In order to foster this environment, it is incumbent upon students to conduct themselves within the framework of the reasonable rules and regulations designed to enhance and protect the academic environment of the university. By specifying behavioral standards and by establishing fair and efficient processes for adjudicating conflict, the university seeks to protect the environment in which learning is nurtured and respect for that goal is continually afforded.

### C. Individual Rights and Responsibilities

#### 1. Access to higher education

a. Within the limits of its facilities, the institution and its courses, programs and activities shall be open to all applicants who

are qualified, according to its admission requirements.

1) The institution shall, in the catalogs, make clear to the students the standards of its programs.

2) Admission to Towson University shall be in compliance with federal and state laws and regulations that prohibit illegal discrimination.

#### 2. Classroom Expression

a. Discussion and expression of all views relevant to the subject matter are permitted in the classroom, subject only to the responsibility of the instructor to maintain order and reasonable academic progress.

1) Faculty comportment shall be in accordance with standards set forth by the American Association of University Professors.

2) Students shall not be penalized for expressing controversial views relevant to the subject matter in class.

b. Evaluation of a student's academic performance shall be neither prejudiced nor capricious.

#### 3. Personal Expression

a. Discussion and expression of all views is permitted within the institution subject only to requirements for the maintenance of order. Support of any cause, by orderly means, which does not disrupt the operation of the institution, is permitted.

b. Students, groups and campus organizations may invite to hear any persons of their own choosing, subject only to the requirements of the use of institutional facilities and regulations of the university, and the Board of Regents of the University System of Maryland.

c. Students' dress and grooming, of any style, are permitted subject to legal prohibitions.

d. Students, groups or organizations may distribute written material on campus, providing such distribution does not disrupt the operations of the institution or deface property and adheres to the Advertising Policy and/or the Distribution and Solicitation Policy, which is available at the University Union, Information Desk (410-704-4636).

e. The right of assembly is granted within the institutional community. The institution retains the right to assure the safety of individuals, the protection of property, and the continuity of the educational process.

f. Orderly picketing and other forms of peaceful protest are permitted on institutional premises. Interference with entrances to institutional facilities, intentional interruption of classes, or damage to property exceeds permissible limits.

g. Orderly picketing and orderly demonstrations are permitted in public areas within institutional buildings subject to the requirements of non-interference.

h. Every student has the option to be interviewed on campus by an organization authorized to recruit at the institution.

#### 4. Privacy

a. Students have the same rights of privacy as any other citizens and surrender none of those rights by becoming members of the academic community.

b. Information about student views, beliefs and political associations acquired by faculty and staff in the course of their work as instructors, advisers and counselors is confidential and is not to be disclosed to others unless under legal compulsion or with permission of the student.

c. The privacy and confidentiality of all student records shall be preserved. Official student academic records, supporting documents, and other student files shall be maintained only by full-time members of the institution's staff employed for that purpose and students employed by them who may have access in line of employment. Separate files shall be maintained for the following: academic records, supporting documents and general educational records, records of disciplinary proceedings, medical and psychiatric records, and financial aid records.

d. No entry may be made on a student's academic record and no document may be placed in the student's file without actual notice to the student.

e. Every student is guaranteed the right to inspect and review all informa-

tion in his or her own files maintained by the Office of Judicial Affairs, subject only to reasonable regulations as to time, place and supervision. However, the student may not have copies of items in a file.

1) A student may challenge the accuracy or presence of any item by following the standard appeal process (see Appeal Procedures below).

2) When a case is referred, a disciplinary file may be developed in the name of the charged student.

3) The file will be voided if the charges against the student are not substantiated.

4) The file will be retained for seven years if the charges are substantiated. Disciplinary records may be retained for longer periods of time or permanently if the sanction is suspension or expulsion from the university or university housing.

5) Any record, file or incident report to which the student has access and an opportunity to respond, or records of previous hearings, may be taken into consideration by the decision-maker in arriving at an appropriate decision.

6) Pursuant to recent changes in the Family Educational Rights and Privacy Act of 1974, as revised, the Office of Judicial Affairs reserves the right to notify parents of students under the age of 21 who are found responsible for alcohol or drug violations of the Code of Student Conduct.

f. No record may be made in relation to any of the following matters except upon the express written request of the student: religion, political or social views, and membership in any organization other than honorary and professional organizations directly related to the educational process.

g. Agencies of the university which keep student records must make students aware of how and to whom those records may be divulged. No information in any student file may be released to anyone except with prior written consent of the student concerned or as stated below.

1) Administrators may have access to student records for internal educational and administrative purposes.

2) Members of the faculty may have access to academic records for internal educational and administrative purposes.

3) Non-academic records shall be routinely available only to administrators and staff charged with their maintenance. Faculty and staff may have access to all records for statistical purposes.

4) Directory information, as defined in this Appendix, may be released to any inquirer unless the student has specifically asked the director of Enrollment Services to withhold that information.

5) Unless under legal compulsion, all other information regarding students' records shall be denied to any person making an inquiry.

h. Upon graduation or withdrawal from the institution, the records and files of former students shall continue to be subject to the provisions of this code.

#### **D. Rights and Responsibilities of Campus Organizations**

1. Organizations, groups, and NCAA teams may be established within the institution for any legal purpose. Their recognition will be in accordance with established guidelines.

2. Membership in all institution-related organizations, within the limits of their facilities, shall be open to any fee-paying member of the institution community who is willing to subscribe to the stated aims and meet the stated obligations of the organization.

3. Individual members, as well as the organization, group, or team itself, can be charged with violations of the Code of Student Conduct, including those actions defined in the Hazing Policy section of this document.

4. Use of university facilities shall be granted to recognized student organizations. Student organizations shall be given priority for use of space as outlined in procedures established by Event and Conference Services and the Student Government Association.

5. The authority to allocate institutional funds derived from student fees for use by organizations shall be delegated to a body in which student participation in the decision-making process is assured.

a. Approval of requests for funds is conditional upon submission of budgets to and approval by this body.

b. Financial accountability, in full accordance with university and state policies, regulations, procedures and practices, is required for all allocated funds, including statement of income and expenses on a regular basis.

c. Otherwise, organizations shall have independent control over the expenditure of allocated funds.

6. The student press is to be free of censorship. The editors and managers shall not be arbitrarily suspended because of student, faculty, administration, alumni or community disapproval of editorial policy or content. Similar freedom is assured oral statements of views on institution-controlled and student-operated radio or television stations. This editorial freedom entails a corollary obligation under the canons of responsible journalism and applicable regulations of the Federal Communications Commission.

7. All student communications shall explicitly state that the opinions expressed are not necessarily those of the institution or its student body.

#### **E. Rights of Students in Institutional Government**

1. All constituents of the institutional community are free, individually and collectively, to express their views on issues of institutional policy and on matters of interest to the student body. Clearly defined means shall be provided for student expression on all institutional policies affecting academic and student affairs.

2. The role of student government and its responsibilities shall be made explicit. There should be no review of student government actions except where review procedures are agreed upon in advance, or where actions of the government are either potentially illegal or present a clear danger to either individual or institutional rights.

3. On questions of educational policy, students are entitled to a participatory function. Students shall be designated as members of standing and special committees concerned with institutional policy affecting

academic and student affairs, including those concerned with curriculum, discipline, admission, academic standards, university governance and allocation of student funds.

#### **F. Student Grievance Procedures**

1. Any student or group may file a grievance against an administrative official or faculty member for violation of student rights as listed above.

2. The Office of Judicial Affairs may make a preliminary investigation to determine whether the charges can be disposed of informally by mutual consent without the initiation of official proceedings.

3. If the charges cannot be disposed of informally, the student or group may file an appeal to the Student Appeals Committee.

### **II. Code of Student Conduct**

#### **A. Rationale**

The primary purpose for the imposition of discipline in the university setting is to protect the campus community. Consistent with that purpose, reasonable efforts will also be made to foster the personal, educational and social development of those students who are held accountable for violations of university regulations. However, the university must commit its policies and procedures first of all to protect and promote the academic enterprise. Consequently, it may be necessary to suspend or expel students who have been found responsible for violations of this Code, or who otherwise pose a substantial danger to the campus community.

#### **B. Definitions**

1. The terms "university" and "institution" mean Towson University (TU).

2. The term "student" includes all persons taking courses at the university, both full-time and part-time, pursuing undergraduate, graduate, professional, certificate, or continuing studies. Persons who are not officially enrolled for a particular term but who have a continuing relationship with the university are considered "students."

3. The terms "faculty member" and "instructor" mean any person hired by the university to conduct classroom activities.

4. The term "university official" includes any person employed by the university, performing assigned administrative, professional, or paraprofessional responsibilities (including student resident assistants and building managers).

5. The term "member of the university community" includes any person who is a student, faculty member, university official, or any other person employed by the university.

6. The term "university premises" includes all land, buildings, facilities, and other property in the possession of or owned, used, or controlled by the university (including adjacent streets and sidewalks).

7. The term "organization" means any number of persons who have complied with formal requirements for university recognition (including SGA, Greek, and NCAA).

8. The term "group" means a number of persons who are associated with each other but who have not complied with university requirements for registration as an organization.

9. The term "Hearing Board" means the hearing officer and judicial aides authorized by the director of Judicial Affairs to determine whether a student has violated the Code of Student Conduct.

10. The director of Judicial Affairs is that person designated by the university president to be responsible for the administration of the Code of Student Conduct.

11. The term "policy" is defined as the written regulations of the university as found in, but not limited to, the Code of Student Conduct, the Policies for University Housing, the Faculty Handbook, the university catalogs, the Towson University Procedures for Events with Alcohol, and the Student Organizations Handbook.

12. The term "interim disciplinary action" means discipline which is imposed pending the outcome of a court case for off-campus behavior.

13. The term "banned from campus" means that a student is prohibited from coming

onto university property. A student who is banned from campus may be allowed to finish current course work off campus, if appropriate, and a tuition refund may be granted. As a result of a ban, the student will not have a permanent file in the Office of Judicial Affairs. A ban will normally only be issued after the student has been offered a meeting with a representative of the Office of Judicial Affairs.

14. The term "non-consensual sexual intercourse" means any sexual intercourse (anal, oral, or vaginal), however slight, with any object, by man or woman upon a man or a woman, without effective consent.

15. The term "non-consensual physical conduct" of a sexual nature means any intentional sexual touching, however slight, with any object, by a man or a woman upon a man or a woman, without effective consent.

16. The term "effective consent" means consent that is informed, freely and actively given, and that uses mutually understandable words or actions which indicate a willingness to participate in mutually agreed upon sexual activity. Consent is not effective if it results from the use of physical force, threats, intimidation, or coercion.

17. The term "incapacitated sex" means to have sex with someone who you know or should know to be incapable of making a rational, reasonable decision about a sexual situation. This includes but is not limited to someone whose incapacity results from being intoxicated or from the taking of a so-called "date-rape drug."

18. The USM Policy on Sexual Assault can be found at: <http://www.usmd.edu/Leadership/BoardOfRegents/Bylaws>

19. The term "stalking" means to follow or otherwise contact another person repeatedly, so as to put that person in fear for his or her life or personal safety.

20. The term "harassment" is defined as engaging in intentional conduct directed at a specific person or persons which seriously alarms or intimidates such persons and which serves no legitimate purpose. Such conduct may include: explicit or implicit threats,

including gestures which place a person in reasonable fear of unwelcome physical contact, harm or death; following a person about in a public place or to or from his or her residence; making remarks in a public place to a specific person which are by common usage lewd, obscene, expose a person to public hatred or that can reasonably be expected to have a tendency to cause acts of violence by the person to whom the remark is addressed; or communicating anonymously by voice or graphic means or making a telephone call anonymously whether or not a conversation ensues.

### C. Scope

1. Generally, student or group conduct subject to institutional discipline is limited to: on-campus actions; off-campus actions which affect the university community or the university's pursuit of its mission, policies or procedures; off-campus actions by officially sponsored organizations, groups, or NCAA teams; or actions on university property which is leased to, or managed by, an entity other than the university.

2. However, a student charged with a violation of federal, state, or local laws for off-campus behavior may be disciplined by the university without a judicial board hearing when: the student is found guilty by a court of law; the student pleads guilty or *nolo contendere* to the charges; the student is given probation before judgment; or, the case is settled.

Additionally, interim or final disciplinary action may be taken before any court action is completed. Examples of charges that may result in action include acts of violence, drug and alcohol related violations, and a citation for a disorderly house. Such action will be taken only after a limited investigation by the Office of Judicial Affairs and after the student has been offered a meeting with a university official.

Any interim action shall be reviewed, and appropriate final action taken, at the student's request or at the university's discretion, when a final court decision is rendered or when the university receives additional persuasive evidence.

3. Some conduct clearly disturbs only the campus environment; when such behavior occurs, the university shall take internal action.

4. When there is evidence that a student has committed a crime on campus, disciplinary action at the university will normally proceed independently of pending criminal charges, including when charges involving the same incident have been dismissed or dropped. The student may then be subject to civil authorities as well as internal disciplinary action.

5. When a student is charged with a violation of one or more provisions of this Code, a charge letter arranging a meeting with a representative of the Office of Judicial Affairs will be given or sent to the student within a reasonable amount of time. At the meeting, the student will be informed of:

- a. specific violation
- b. description of alleged incident
- c. hearing or informal investigation procedure
- d. rights of appeal

#### **D. Prohibited Conduct**

The following misconduct is subject to disciplinary action:

1a. Intentionally furnishing false information to the institution; this includes lying to university officials.

1b. Forging, altering, or using institutional documents or instruments of identification with intent to defraud, or to otherwise benefit there from.

1c. Possession of false identification (e.g., a fake driver's license).

2a. Disruption or obstruction of teaching, research, administration or disciplinary proceedings.

2b. Disruption or obstruction of university sponsored activities or events.

3. Lewd, obscene or indecent behavior.

4. Physical abuse of any person.

5a. Unwanted physical contact or threat of physical contact with a university official.

5b. Threats of violence or placing a person in fear of imminent physical injury or danger.

5c. Any endangering conduct that imperils or jeopardizes the health or safety of any person or persons, including oneself.

5d. Stalking of any person.

6. Inflicting mental or emotional distress upon a person through a course of conduct involving abuse or disparagement of that person's race, religion, sex, creed, sexual orientation, age, national origin or disability.

7. Acts that invade the privacy of another person.

8. Sexual assault, as defined by the USM Policy on Sexual Assault, including but not limited to non-consensual sexual intercourse, incapacitated sexual intercourse, and non-consensual verbal or physical conduct of a sexual nature.

9. Abuse of any person; this includes verbal, written, e-mail, or telephone abuse.

10. Intentionally or recklessly damaging, destroying, defacing or tampering with university, public or personal property of another.

11. Uncooperative behavior and/or failure to comply with proper instructions of officials acting in performance of their duties.

12. Violation of published institutional regulations and policies.

13. Violation of state, federal and local laws.

14. Unauthorized presence in institutional facilities.

15a. The possession or use of illegal drugs or drug paraphernalia when not in accordance with established policy.

15b. The sale, distribution or intent to distribute; and/or manufacture of illegal drugs when not in accordance with established policy.

16. The possession or use of any firearms or instrument which may be construed as a weapon, without express permission of the University Police.

17. The possession of explosives, fireworks, or pyrotechnic paraphernalia on campus.

18a. The possession or use of alcoholic beverages when not in accordance with established policy.

18b. Public intoxication.



19. The unauthorized use of or entry into university computer systems.

20. Violation of the university housing policy.

21. Violation of any disciplinary sanction.

22. Charging telephone or telecommunications charges to university telephones or extension numbers without authorization.

23. Theft, attempted theft, possession of stolen property, conspiracy to steal or misappropriation of another's property. This includes, but is not limited to, removing, possessing, concealing, altering, tampering or otherwise appropriating goods or property without authorization.

24. Violation of the Student Academic Integrity Policy.

25. Harassment of any person.

#### E. Penalties

The following penalties may be imposed upon students and all student organizations for violations of the Code of Student Conduct. With only two exceptions, federal regulation prohibits disclosing the outcome of judicial proceedings to anyone other than to the accused and to appropriate university personnel. The first exception relates to allegations of sexual assault: in those cases, the university will disclose to the victim of a sexual offense the outcome of any investigation by University Police or the Office of Judicial Affairs pursuant to the victim's complaint against the alleged perpetrator of the sexual offense. The second case relates to alcohol and drug violations: the parents of students under the age of 21 may be notified when students are found responsible for violations of the university's alcohol or drug policies.

1. **CENSURE:** A written reprimand for violation of specified regulations, including a warning that continuation or repetition of prohibited conduct may be cause for additional disciplinary action. This may include a specified period of probation.

2. **PROBATION:** Notice to the student that any further disciplinary violation, during a specified period of time, may result in suspension or expulsion from the university and or university housing.

3. **SOCIAL PROBATION:** Exclusion from participation in privileged or extracurricular institutional activities, including NCAA athletic events or practice, for a specified period of time. Additional restrictions or conditions may also be imposed. Violations of the terms of social probation, or any other violation of this Code during the period of probation, will normally result in a fine, suspension or expulsion from the university.

4. **SUSPENSION:** Suspension involves separation of the student from the university for a specified period of time and usually impairs a student's ability to pursue work at other colleges and universities. Normally, the student will also be barred from university premises during the period of suspension. Any student who is suspended shall not be entitled to any tuition or fee refund.

5. **EXPULSION:** Expulsion constitutes permanent separation of the student from the university. Any student who is expelled shall not be entitled to any tuition or fee refund.

6. **SUSPENSION OF GROUP:** Suspension shall consist of the withdrawal of an organization's recognition by the university, for a stated period of time, when an organization is found to have violated regulations. Suspension shall result in complete suspension of activities of the group during the stated period of time and may also include conditions for removal of suspension.

7. **ORGANIZATIONAL DISSOLUTION:** Organizational dissolution is a sanction imposed only upon student organizations guilty of serious and/or repeated violations of these standards. The sanctions involve permanent withdrawal of recognition by the university, denial of the use of university facilities or funds, and official dissolution of the organization on the campus.

8. **RESTITUTION:** Restitution may be imposed on students whose violation has involved monetary loss or damage. Fines may be imposed in addition to restitution. Restitution becomes a financial obligation to the university and either full payment or an agreement for partial payment according to a schedule agreed to by the director of Judicial

Affairs is required before a student may register for classes again, or in the case of seniors, before the student may graduate.

**9. TERMINATION OF UNIVERSITY HOUSING CONTRACT:** Termination of a student's university housing contract may be imposed in order to safeguard the residence community if the seriousness of the violation warrants such action.

**10. FINES:** Fines of varying amounts may be imposed for certain violations, such as alcohol and drug related incidents. Fines must be paid prior to the end of the current semester, otherwise a student's registration privileges will be withheld or prior registration canceled.

**11. OTHER SANCTIONS:** Other sanctions may be imposed instead of or in addition to those specified above. For example, students may be subject to restrictions upon or denials of university parking privileges for violations involving the use or registration of motor vehicles on campus; sanction hours or research projects may be assigned; or the university housing contract may be placed on probation.

**12. DRUG PENALTIES:** (see Substance Abuse Policy below)

#### **F. Standards and Procedures of Due Process**

1. Students subject to suspension or expulsion from the university will be entitled to a judicial board hearing, except as described in section C.2. With the exception of allegations of academic dishonesty (see the section below: Student Academic Integrity Policy), students subject to any other sanction will be entitled to an informal investigation.

2. The purpose of a disciplinary proceeding is to provide a fair evaluation of an accused's responsibility for violating disciplinary regulations. Although formal rules of evidence need not be applied, procedures shall comport with standards of fundamental fairness. Harmless deviations from the prescribed procedures shall not necessarily invalidate a decision or proceeding unless significant prejudice to an accused student or the university may result.

3. Any person may refer students or

student groups or organizations suspected of violating this Code to the Office of Judicial Affairs. Allegations of violations occurring within university housing should be referred to the Department of Housing & Residence Life. Those referring cases are normally expected to serve as a witness and to present relevant evidence in disciplinary hearings or informal investigations. The director of Judicial Affairs may appoint a member of the campus community to serve as an adviser to university witnesses. The role of the adviser shall be limited to consultation with the witnesses.

4. Suspensions and expulsions from the university will be made by the vice president for Student Affairs or designee. All other sanctions will be determined by the director of Judicial Affairs, or designee. In all cases, the accused will be notified in writing of any sanctions to be imposed and of his or her rights of appeal.

#### **G. Informal Investigation and University Hearing Procedure**

1. **Informal Investigation:** The informal investigation is designed to reduce unnecessary proceduralism and potential contentiousness in disciplinary proceedings. An informal investigation will normally begin with an informal, non-adversarial meeting between the accused and a university administrator, as designated by the director of Judicial Affairs. The university shall consider all matters that reasonable persons would accept as having probative value, including documentary evidence, written statements and hearsay. The accused will be given access to documentary evidence and written statements in advance or during the initial meeting and allowed to respond to them. Accused are also allowed to submit the names of appropriate and relevant witnesses.

The following procedural protections are provided to respondents in the informal investigation.

a. written notice of the specific charges prior to or at the initial meeting.

b. reasonable access to the case file during the informal investigation or at the student's request.

c. an opportunity to respond to the

evidence and call appropriate and relevant witnesses.

**2. University Hearing:** The following procedural guidelines shall be observed for all hearings held by the University Hearing Board. The University Hearing Board will be composed of the hearing officer, who shall preside and make the final decision, and one or two student judicial aides. In the absence of the judicial aides, the hearing officer may hear and decide the case alone. A case may not be heard if the hearing officer, or designated substitute, is not in attendance. The hearing officer shall be responsible for submitting the hearing panel's report to the Office of Judicial Affairs.

a. The accused shall be given notice of the hearing date and the specific charges against him or her at least three calendar days in advance and shall be accorded reasonable access to the case file, which will be retained in the Office of Judicial Affairs. (In some cases, the accused may choose not to wait three days for a hearing to take place.)

b. The hearing will be tape recorded. The taped records will be kept on file in the Office of Judicial Affairs for one semester following the hearing.

c. The accused will be present for the hearing. If more than one student is charged with the same incident, the university may hold a combined hearing. If the accused fails to appear, this will be stated for the record and the hearing will continue.

d. The accused and the complainant may be accompanied by a friendly observer. This party may not be or act as legal counsel, except when concurrent criminal charges have been filed. Then counsel may not participate in the hearing, but may advise the accused.

e. The hearing officer shall exercise control over the proceedings to avoid needless consumption of time and to achieve orderly completion of the hearing. Any person, including the accused, who disrupts a hearing may be excluded by the hearing officer.

f. The accused will be found responsible if the hearing officer decides that a preponderance of evidence supports the

charges. Preponderance of the evidence is that evidence, which, when fairly considered, produces the stronger impression, has the greater weight, and is more convincing as to its truth when weighed against the evidence in opposition thereto.

g. Formal rules of evidence shall not be applicable in disciplinary proceedings conducted pursuant to this Code. The hearing officer shall admit all matters into evidence that reasonable persons would accept as having probative value, including documentary evidence, written statements, and hearsay. Repetitious or irrelevant evidence may, however, be excluded. Documentary evidence and written statements shall only be admitted into evidence if available to the accused before or during the hearing.

h. The director of Judicial Affairs may appoint a special hearing panel member in complex cases. Special panel members may question all parties, participate in hearing panel deliberations, and offer advice to the hearing officer.

i. The hearing officer's report will be presented to the Office of Judicial Affairs. The student may view the hearing officer's written report by appointment.

j. The accused will receive the decision in writing from the vice president for Student Affairs or designee.

## **H. Judicial Procedures for Student Organizations, Groups, and NCAA Teams**

1. Student organizations, groups, and NCAA teams (referred to here collectively as "group") may be charged with violations of the Towson University Code of Student Conduct.

2. When one or more members of a group are charged with a violation of the Code of Student Conduct, the university may charge the group as well. A student group and its officers may be held collectively and individually responsible when violations of this Code by those associated with the group have received the consent or encouragement of the group or of the group's leaders or officers.

3. A position of leadership in a student group entails responsibility. Student of-

ficers or leaders cannot knowingly permit, condone, or acquiesce in any violation of this Code by the group. This section of the Code is designed, in part, to hold a group and its officers accountable for any act of hazing. The express or implied "consent" of the victim or participant is not a defense.

4. The officers, leaders, or any identifiable spokesperson for a student group may be directed by the vice president for Student Affairs or designee to take appropriate action designed to prevent or end violations of this Code by the group. Failure to make reasonable efforts to comply with the vice president for Student Affairs' directive shall be considered a violation of this Code, both by the officers, leaders, or spokesperson for the group and by the group itself.

5. An informal investigation for student groups will be conducted in a manner similar to the procedures listed above. Conferences shall be conducted with one spokesperson representing the group, usually the president. Any sanction listed in the Code of Student Conduct may be imposed on a group and its individual members. If individual members are subject to suspension or expulsion from the university for actions of the group, those individuals will be offered a judicial board hearing.

#### **I. Emergency Suspensions**

1. When there is evidence that the continued presence of a student on the university campus poses a substantial threat to him/herself or others, or to the stability and continuance of normal university functions, the vice president for Student Affairs or designee, may immediately suspend a student from any or all university activities, including university housing, for an interim period pending a hearing or medical evaluation. Such an emergency suspension may become effective immediately without prior notice.

2. An emergency suspension may be imposed only:

- a. to ensure the safety and well-being of members of the university community;
- b. to ensure the student's own physical or emotional safety and well-being;

c. if the student poses a definite threat of disruption of or interference with the normal operations of the university.

3. A student issued an emergency suspension shall be denied access, as determined appropriate by the vice president for Student Affairs or designee, to:

- a. the entire campus, including classes;
- b. university housing and dining facilities;
- c. all other activities or privileges for which the student might otherwise be eligible.

4. In these cases, a university hearing or medical evaluation will be scheduled as soon as is practicable.

#### **J. Appeal Procedures**

1. Any disciplinary determination resulting in expulsion or suspension from the university may be appealed to:

- a. the Student Appeals Committee
- b. the president of the university

2. Any disciplinary determination resulting in suspension from university housing may be appealed to: the Student Appeals Committee.

3. Any disciplinary determination resulting in any lesser sanction except as provided below may be appealed to the vice president for Student Affairs.

The basis for appeal of a disciplinary sanction must be one of the following:

- a. a flaw in the student's right of due process
- b. evident bias in the decision of the hearing board or the individual conducting an informal investigation
- c. inconsistent or overly severe sanction imposed
- d. new evidence or insufficient consideration of all aspects of the situation

Appeals must be submitted in writing to the Office of Judicial Affairs within five business days after receipt of the sanction letter. Failure to appeal within the allotted time will render the original decision final and conclusive. Appeals shall be decided upon the record of the original proceedings, written letters submitted by the parties, and

any further information requested by the committee.

The imposition of sanctions will not be deferred during the appeal process unless the student presents a compelling reason to the vice president for Student Affairs.

## STUDENT ACADEMIC INTEGRITY POLICY

The acquisition, sharing, communication, and evaluation of knowledge is at the core of a university's mission. To realize this part of its mission, a university must be a community of trust. Because integrity is essential to the purpose of an academic community, the responsibility for maintaining standards of integrity is shared by all members of that academic community.

As instructors, faculty members are ultimately responsible for maintaining the academic standards of integrity on which trust is founded because they set academic standards, award academic credit, and confer degrees when standards are met. To carry out these responsibilities, faculty members will reasonably assess that student work submitted for academic credit is authentic as well as consistent with established academic standards. Therefore, academic evaluation includes a judgment that the student's work is free from academic dishonesty of any type.

Through example in their own academic pursuits and through the learning environment that they create for their students, faculty members preserve and transmit the values of the academic community. They are expected to instill in their students respect for integrity and a desire to behave honestly. They must also take measures to discourage student academic dishonesty. The following policies, procedures and definitions are intended to help faculty meet these responsibilities.

As responsible members of the academic community, students are obligated not to violate the basic standards of integrity. They are also expected to take an active role in encouraging other members to respect those

standards. Should a student have reason to believe that a violation of academic integrity has occurred, he/she is encouraged to make the suspicion known to a member of the faculty or university administration. Students should familiarize themselves with the university's policies, procedures and definitions of types of violations.

Commitment to maintaining and encouraging high standards of academic integrity is demonstrated in many ways. One way is through the establishment of policies and procedures governing violation of the standards. The provisions of Towson University's Student Academic Integrity Policy follow. This policy applies to all enrolled students, undergraduate and graduate, regardless of teaching site (e.g., off-campus), or teaching mode (e.g., distance learning). The term "student" includes all persons taking courses at the university, both full-time and part-time, pursuing undergraduate, graduate, professional, certificate or continuing studies.

## II. PROCEDURES FOR HANDLING CASES

A faculty member responsible for assigning final grades in a course may acquire evidence, either directly or through information supplied by others that a student violation of academic integrity may have occurred. After collecting the evidence available, the faculty member meets with the student to present the evidence of a violation and request an explanation. Once a faculty member has charged a student with academic dishonesty, the student may not withdraw from the course. Any student who withdraws from a course before the charge is made may be reregistered for the course so that appropriate action can be taken.

If the faculty member accepts the student's explanation, no further action is taken. If the faculty member determines that a violation has occurred, the faculty member informs the student, in writing, of the academic penalty and of the student's rights of appeal. The faculty member sends a copy of the letter, together with any additional information, to

the department chairperson and to the Office of Judicial Affairs. The letter should include:

- nature of the charge/evidence against the student;
- brief summary of the meeting with the student;
- faculty member's decision;
- right of appeal to the department chair.

If the student is subsequently found not responsible for the charge, the student may either:

- remain in the course without penalty, or
- withdraw from the course regardless of any published deadlines.

If the student is found responsible for violating the Student Academic Integrity Policy, the student may not withdraw from the course and will receive the sanction imposed by the instructor or other academic authority.

### III. PENALTIES

All acts of academic dishonesty violate standards essential to the existence of an academic community. Most offenses are properly handled and remedied by the faculty member teaching the course in which they occur. The penalties that may be assessed by the faculty member are course related and may include the following:

- a revision of the work in question and/or completion of alternative work, with or without a grade reduction;
- a reduced grade (including "F" or zero) for the assignment;
- a reduced grade (including "F") for the entire course.

Whatever the penalty, the letter describing the incident and recording the decision will be kept for seven years in the Office of Judicial Affairs. The purpose of this record keeping is to ensure that students who violate university's Student Academic Integrity Policy a second time are dealt with appropriately. A second purpose is to deter students from repeating offenses. The first-offense file is an internal record, not part of the student's disciplinary record or of the academic transcript.

A second violation will normally result in formal judicial charges being brought

against the student. In addition to the sanctions listed above, sanctions for a second or subsequent violation may include:

- suspension from the university for a designated period of time;
- expulsion from the university;
- any sanctions listed in the Code of Student Conduct.

In the determination of penalties, the following factors may be considered:

- the nature and seriousness of the offense;
- the injury or damage resulting from the misconduct;
- the student's prior disciplinary record.

### IV. APPEAL PROCEDURES

A. If the student chooses to appeal, upon receipt of the faculty member's decision the student must submit within five working days, unless there is a compelling reason to extend this time period, any letter of appeal to the department chairperson. If the time is extended, the letter of appeal will be due as soon as possible after the five days. After receiving the student's appeal letter, the chairperson will:

- arrange a meeting with the student within five working days, unless there is a compelling reason to extend this time period. If the time is extended, the meeting will be held as soon as possible after the five days;
- arrange, if appropriate, a meeting with the faculty member, either separately or with the student in attendance;
- notify the student in writing of his/her decision within five working days following their meeting, unless there is a compelling reason to extend this time period. If the time is extended, the student will be notified as soon as possible after the five days;
- send copies of the decision to the Office of Judicial Affairs and to the office of the dean of the college.

B. If the student is dissatisfied with the chairperson's decision, the student may appeal to the Student Appeals Committee. The student must submit a letter of appeal to the committee, in care of the Office of Judicial Affairs, within five working days of the chairperson's decision, unless there is a compelling

reason to extend this time period. If the time is extended, the letter of appeal will be due as soon as possible after the five days. Once the Committee has received the appeal, it will set up a meeting where both student and faculty will be invited to give testimony to the Committee. The Committee may let the original decision stand or may modify it. The decision of the Committee is final.

- If a department chairperson is also the instructor making a charge of academic dishonesty, any appeal will be sent to the dean of the college.
- Requests for all the extensions of time above should be made to the Office of Judicial Affairs with a brief justification. The decision as to what is a compelling reason is made solely by the Office of Judicial Affairs.
- Any student charged with a second or subsequent violation of the Student Academic Integrity Policy may be suspended or expelled from the university. He or she may appeal that decision to the Student Appeals Committee as outlined in the Code of Student Conduct.

## V. DEFINITIONS OF VIOLATIONS

The following definitions and examples are not meant to be exhaustive. The university reserves the right to determine, in a given instance, what action constitutes a violation of academic integrity.

### A. PLAGIARISM

Presenting the work, products, ideas, words, or data of another as one's own is plagiarism. Indebtedness must be acknowledged whenever:

1. one quotes another person's actual words or replicates all or part of another's product. This includes all information gleaned from any source, including the Internet.
2. one uses another person's ideas, opinions, work, data, or theories, even if they are completely paraphrased in one's own words.
3. one borrows facts, statistics, or other illustrative materials.

Because expectations about academic assignments vary among disciplines and instructors, students should consult with their instructors about any special requirements related to citation.

**Typical Examples:** Submitting as one's own, the work of a "ghost writer" or commercial writing service; knowingly buying or otherwise acquiring and submitting, as one's own work, any research paper or other writing assignment; submitting, as one's own, work in which portions were produced by someone acting as tutor or editor; collaborating with others on papers or projects without authorization of the instructor.

In addition to oral or written work, plagiarism may also involve using, without permission and/or acknowledgement, computer programs or files, research designs, ideas and images, charts and graphs, photographs, creative works and other types of information that belong to another.

Verbatim statements must be enclosed by quotation marks, or set off from regular text as indented extracts, with full citation.

### B. FABRICATION AND FALSIFICATION

Making unauthorized alterations to information, or inventing any information or citation in an academic exercise.

Fabrication is a matter of inventing or counterfeiting information, while falsification is a matter of altering information.

**Typical Examples:** Fabrication—inventing or counterfeiting data, research results, information or procedures; inventing data or fabricating research procedures to make it appear that the results of one process are actually the results of several processes; counterfeiting a record of internship or practicum experiences.

Falsification—altering the record of data or experimental procedures or results; false citation of the source of information (e.g., reproducing a quotation from a book review while indicating that the quotation was obtained from the book itself); altering the record of or reporting false information about practicum or clinical experiences;

altering grade reports or other academic records; submitting a false excuse for absence or tardiness in a scheduled academic exercise; altering a returned examination paper and seeking re-grading.

### C. CHEATING

Using or attempting to use unauthorized materials, information, notes, study aids, or other devices in any academic exercise. This includes unauthorized communication of information during an exercise.

**Typical Examples:** Copying from another student's paper or receiving unauthorized assistance during a quiz, test or examination; using books, notes or other devices (e.g., calculators) when these are not authorized; procuring without authorization tests or examinations before the scheduled exercise (including discussion of the substance of examinations and tests when it is expected these will not be discussed); copying reports, laboratory work, computer programs or files and the like from other students; collaborating on laboratory or computer programs or files and the like from other students; collaborating on laboratory or computer work without authorization and without indication of the nature and extent of the collaboration; sending a substitute to take an examination.

### D. COMPLICITY IN ACADEMIC DISHONESTY

Helping, or attempting to help, another commit an act of academic dishonesty.

**Typical Examples:** Allowing another to copy from one's paper during an examination or test; distributing test questions or substantive information about the material to be tested without authorization before the scheduled exercise; collaborating on academic work knowing that the collaboration will not be reported; taking an examination or test for another student, or signing a false name on an academic exercise. (Note: Collaboration and sharing information are characteristics of academic communities. These become violation when they involve dishonesty. Instructors should make expectations

about collaborations clear to students. Students should seek clarification when in doubt).

### E. ABUSE OF ACADEMIC MATERIALS

Destroying, stealing, or making inaccessible library or other resource material.

**Typical Examples:** Stealing or destroying library or reference materials needed for common academic exercises; hiding resource materials so others may not use them; destroying computer programs or files needed in academic work; stealing or intentionally destroying another student's notes or laboratory experiments; receiving assistance in locating or using sources of information in an assignment where such assistance has been forbidden by the instructor. (Note: The offense of abuse of academic materials shall be dealt with under this policy only when the abuse violates standards of integrity in academic matters, usually in a course or experience for which academic credit is awarded).

### F. MULTIPLE SUBMISSIONS

Submitting substantial portions of the same academic work (including oral reports) for credit more than once without authorization of the instructor(s). What constitutes a "substantial portion" of the same work is determined solely by the university.

**Typical Examples:** Submitting the same or substantially the same work for credit in more than one course without prior permission of the instructor. Building upon or reworking prior work is acceptable with permission of the instructor.

### HAZING POLICY

"Hazing" in any form is against the law (Annotated Code of Maryland, Article 27, Section 268H) and is strictly prohibited at Towson University. When this policy is violated, action may be taken against all participants, including pledges. The most damaging instrument to campus organizations (social, honor, service, athletic) is the employment of a program of education, pledging, membership, or induction which includes hazing.



Hazing risks human lives, mistreats those involved, and jeopardizes the affiliation of campus organizations at this university.

#### **Definition**

"Hazing" is defined as any action taken or situation created intentionally, whether on or off campus, to produce mental or physical discomfort, embarrassment, harassment or ridicule. Any mental or physical requirement, request or obligation placed upon any person that could cause pain, disgrace, or injury, or is personally degrading or violates any federal, state, local statute or university policy is also considered hazing.

Such activities and situations include but are not limited to: paddling in any form; creation of excessive fatigue; road trips; scavenger hunts; publicly wearing apparel which is conspicuous and not normally in good taste; engaging in public stunts and humiliating games and activities; late night sessions that interfere with scholastic and occupational activities; calisthenics (push-ups, sit-ups, runs, etc.); line-ups (lining people up and harassing them verbally); running personal errands for the members; forced consumption of alcohol, illegal substances, or food; and any other activities not consistent with the academic mission of the university.

#### **Reporting Procedures**

Anyone experiencing or witnessing a violation of this hazing policy is encouraged to report the incident and may bring their concerns to the Office of Judicial Affairs at 410-704-2057, Administration Building, room 236 and/or Student Involvement and Transitions at 410-704-3307, University Union, room 217.

#### **NON-DISCRIMINATION POLICY**

Towson University is in compliance with federal and state laws and regulations that prohibit illegal discrimination. The university does not discriminate on the basis of sexual orientation. Sexual harassment (see following section) is considered a form of sexual discrimination.

#### **Procedure for Filing and Investigating Com-**

#### **plaints of Discrimination in Education or Employment:**

Students and employees may bring concerns about discrimination or unfair practices in education or employment to the fair practices officer for investigation (Administration Building, room 205, 410-704-2361). After a student or employee has filed a formal complaint, full information from the complainant, from university records, and from university personnel involved in the incident will be gathered and a determination as to the merits of the complaint will be made.

The investigation will normally be completed within 30 days. If a key person is unavailable or if the complaint is complex, involves a grade dispute or other faculty matter, the investigation may take longer. Every effort will be made to complete the investigation within the semester in which it is filed, unless the complaint is filed within the last two weeks of a semester, in which case every effort will be made to complete the investigation by the beginning of the following semester.

Students are encouraged to bring incidents that they think are discriminatory to the attention of university officials. The university cannot take appropriate action unless it is aware that a problem exists. For more information, visit [www.towson.edu/AA](http://www.towson.edu/AA).

#### **SEXUAL OR GENDER HARASSMENT**

Sexual harassment constitutes a serious threat to the free interaction and exchange necessary for educational and personal development, and it is entirely unacceptable on this campus. Definition: Sexual or gender harassment may range from offensive gender or sexual innuendos to coerced sexual relations. It can happen to both men and women, but women are more often victims.

Harassment occurs when a person in a position of control or influence uses authority and power to gain sexual advances and threats or punishes for refusal to comply. It includes suggestive remarks about clothing

or physical attributes; leering or ogling; unnecessary touching; subtle or direct requests for sexual favors; implied or overt threats of consequence; or a hostile sexual environment. Students and employees may bring concerns about sexual harassment to the fair practices officer for investigation (Administration Building, room 205, 410-704-2361). For more information, visit [www.towson.edu/AA](http://www.towson.edu/AA).

### AIDS POLICY

In accordance with the university's Non-Discrimination Policy, no student, faculty or staff member shall be denied access to the academic, social or employment opportunities offered by Towson University solely because he/she has AIDS or is an HIV carrier. A university committee (appointed by the president) will be appointed to evaluate individual cases of HIV infection and to make recommendations as questions of risk or cases of specific emergencies require. Educational programs will be implemented for the campus and the campus community to assist in preventing further spread of the virus.

### POLICY ON SUBSTANCE ABUSE FOR FACULTY, STAFF AND STUDENTS

#### University System of Maryland Policy

The University System of Maryland, as an employer, strives to maintain a workplace free from the illegal use, possession, or distribution of controlled substances (as defined pursuant to Controlled Substances Act, 21 U.S.C. Sections 801, et. seq.). Unlawful manufacture, distribution, dispensation, possession or use of controlled substances by university employees in the workplace is prohibited under university policy. In addition to any legal penalties under federal and state law, employees found to be in violation of this policy or the Maryland Governor's Executive Order on Substance Abuse, 01.01.1991.16, may be subject to corrective action under applicable university personnel policies. The university supports programs aimed at the prevention of substance abuse by university employees. Employees are

encouraged to seek assistance for substance-dependency problems. Employee-assistance counseling and leaves of absence to attend rehabilitation programs are appropriate means of dealing with these problems.

#### Towson University Policy

The use of controlled substances and the abuse of alcohol present a serious threat to individual health and everyone's safety. Moreover, the use of illegal drugs and the abuse of alcohol can result in less than complete reliability, stability, and good judgment which is inconsistent with the standards set for the faculty, staff and students of this university. Towson University, as an employer, strives to maintain a workplace free from illegal use, distribution or possession of controlled substances. Any person found to be participating in such activity will be subject to administrative disciplinary action, mandatory counseling and treatment and/or criminal proceedings.

The use, possession, and/or sale of illegal drugs are considered violations of Towson University's Code of Student Conduct, the faculty contract, and the terms of employment of regular, contingent (exempt/non-exempt) staff. Faculty, students and employees who use, possess or sell illegal drugs shall be subject to discipline, including mandatory counseling, suspension or dismissal from the university. The university will take disciplinary action based on reasonable available information; such action will be independent of any civil or criminal processes precipitated by the same incident and will follow the policies and procedures of the university and the University System of Maryland Board of Regents. In the workplace, use, possession, and/or sale of illegal drugs and controlled substances are also violations of state and federal laws for which individuals are subject to university disciplinary processes and/or arrest and criminal prosecution.

These serious workplace situations must be handled in ways which ensure the protection of the civil rights and handicapped rights of the accused, the treatment and rehabilitation of employees, and the notifica-

tion of the necessary administrative and legal authorities.

Specific procedures for reporting drug use, penalties and appeals are part of the Towson University Code of Conduct. Employee disciplinary measures and appeals for violations of this policy as well as other policies of the university are part of the Faculty Handbook, the Part-Time Faculty Handbook, and the Personnel Manual.

In addition to the university policy on substance abuse, all employees of the university, including student employees, are subject to the Maryland Governor's Executive Order 01.01.1991.16 on the Drug and Alcohol Free Workplace.

In accordance with federal legislation, Towson University's substance abuse policy will be distributed annually to all students and employees through the campus or U.S. mail.

#### **Education**

In accordance with federal legislation, there will be an annual distribution in writing, to each employee and student of:

1. the dangers of drug abuse in the workplace (to include student employees);
2. the institution's policy of maintaining a drug-free workplace and drug-free campus;
3. standards of conduct that clearly prohibit, at a minimum, the unlawful possession, use or distribution of illicit drugs and alcohol by students and employees on university property or as part of any university activities;
4. a description of applicable legal sanctions under local, state or federal law;
5. a description of health risks associated with the use of illicit drugs and abuse of alcohol;
6. a description of available drug or alcohol counseling, treatment, or rehabilitation and/or reentry programs;
7. a clear statement of the disciplinary sanctions that the university will impose on students and employees.

All supervisory faculty and staff will receive training on drug awareness and treatment. This training program shall include

existing as well as new supervisory personnel. Drug awareness training will be an integral part of the university's student orientation program.

Faculty and staff orientations will include programming especially designed to focus on the university's policy toward substance abuse.

#### **Employee/Student Assistance Programs**

Towson University's health and drug education programs will inform the entire university community of the physical and psychological effects of the non-medically supervised use of illegal drugs, alcohol and consciousness expanding drugs. The education program shall make employees aware of the consequences of prosecution under local, state and federal laws and the rules for governance for university imposed discipline.

The university recognizes the importance of individual rights and respects the privacy of employees and students. To this end, the university has an established counseling program for students and an Employee Assistance Program (EAP) for faculty and staff. These programs have been designed to provide counseling and rehabilitative services. Employees and students are encouraged to contact the appropriate program in the event they have a substance abuse problem. In this way a student or employee can correct the problem before it jeopardizes a job, an education, family, or individual well being.

Employees or students who need help with a problem of drug abuse shall be encouraged to call the Counseling Center, the Health Center, Human Resources or the office of the vice president for Student Affairs. The resources of the Counseling Center shall be available for supervisors who wish consultation in handling employees who may have substance abuse problems. The call will be treated with confidentiality and respect.

Voluntary participants in an assistance program will not jeopardize their continued employment or enrollment at the university provided that their job performance or behavior is consistent with established standards. However, voluntary participation in

an assistance program will not prevent disciplinary action for violation of the policy described herein, where such violation has already occurred.

#### **Procedures for Grievances and Appeal**

Towson University strongly encourages the use of drug rehabilitation programs as the keystone to a drug-free environment. For each class of employee and student category, the formal rules of procedure remain intact. These include the student judicial procedures and criminal justice procedures. Following a conviction for violation of a drug offense in the workplace, disciplinary action can be imposed, up to and including termination or disenrollment. As a condition of continued employment or education, an employee or student may be required to participate in an approved drug abuse rehabilitation program.

#### **Suspected Drug Use, Possession, or Sale**

The use, possession or sale of illegal drugs violates state and federal laws for which all offenders are subject to arrest and criminal prosecution, as well as university administrative processes. These serious offenses must be handled in ways to ensure the guarding of evidence, the protection of civil rights of the accused, and notification of the proper authorities. To this end, specific procedures outlined in this policy are to be followed in any campus situation where substances are suspected to be illegal drugs.

Any individual, student or employee, directly associated with the University System of Maryland who uses or becomes involved with illegal drugs without proper medical supervision, shall be subject to discipline, including suspension or dismissal, as appropriate.

Students, faculty and staff, in their routine activities, may observe suspected illegal drug activities. As a result, some staff members may become involved in the determination of disciplinary action that follows suspected use, possession or distribution of an illegal substance. Specific actions or responsibilities in regard to the suspicion of illegal substances have been outlined in other paragraphs of this policy.

The university reserves the right to con-

duct drug testing consistent with applicable federal and state laws.

#### **Alcohol Use and Abuse**

Towson University views with alarm the potential and real problems caused by alcohol abuse and alcoholism. The alcohol policy has been directed to students and employees engaged in the legal use of alcohol. The implicit as well as explicit focus for prudent drinking is with moderation rather than intoxication.

Any person using alcoholic beverages at any time and at any place while on the Towson University campus is responsible to civil and university authorities for compliance with state and county law.

It is against Maryland state law for anyone under the age of 21 to purchase, possess or consume alcoholic beverages.

It is unlawful for any minor to knowingly and willfully make any misrepresentation or false statement as to his/her age in order to obtain alcoholic beverages.

It is unlawful for any person to purchase alcoholic beverages for consumption by an individual who is known to be a minor.

It is unlawful for any person to possess open containers of any alcoholic beverages in a public place.

Policies concerning the possession and/or use of alcoholic beverages on campus and at special university/community events shall be the delegated responsibility of the vice president for Student Affairs and associate provost.

#### **Procedures for Reporting Substance Abuse**

The following information shall provide the basic guidelines for the reporting of student or employee drug use, possession, sale or distribution. Other procedures to be followed have been specified in other sections of this policy.

Upon observing or receiving a report of suspected use, possession, or distribution of an illegal drug or the illegal use of alcohol, faculty and staff, and/or students shall proceed in the following manner:

**Step One:** Report suspicions of illegal drug/or alcohol use or possession to the administrator of your area or the appropriate vice president. Any faculty or staff mem-

ber who observes the workplace use or possession of illegal drugs or alcohol must take appropriate action.

Students observing drug activity in the residence halls should notify a housing staff member. These administrators will notify the appropriate authorities and take appropriate action.

**Step Two:** Use judicious thought and sound judgment when approaching individuals suspected of illegal drug or alcohol use, possession or distribution. It is preferable to leave drugs or alcohol in their original location until the authorities take action.

**Step Three:** The university administration will determine if state or federal laws may have been violated. University employees should not become involved in mediating any situation involving illegal drug or alcohol use.

#### **Penalties for Substance Abuse Penalties for Faculty and Staff**

Towson University strongly encourages the use of drug rehabilitation programs as an effective measure in creating a drug-free workplace program. However, additional penalties may be implemented up to and including reprimand, suspension, mandatory counseling, mandatory participation in a drug rehabilitation program and/or dismissal. Appropriate university grievance procedures shall be used for each classification of employee.

Any individual who has been convicted of a controlled dangerous substance offense on or after January 1, 1991, shall be required to disclose that fact when applying for a license renewal. The licensing authority may refuse to issue the license or impose appropriate conditions on the license, except for non-commercial driver's licenses (Maryland Drug Enforcement Act of 1990).

Maryland law [Art. 27, 8, 286, and 287 Annotated Code of Maryland (1990)] states that persons who manufacture, distribute, dispense, or possess a controlled dangerous substance may be subject to imprisonment (length of time varies) and fines (\$15,000 and up).

#### **Penalties for Students**

In addition to the laws of the University System of Maryland, the state of Maryland and the nation, Towson University students shall be governed by rules referred to as the "Towson University Code of Conduct." Within these campus guidelines, students shall be subject to institutional discipline if they use, possess, distribute, or sell illegal drugs and illegally use or abuse alcohol. There may be various penalties applied to the student convicted of misuse of drugs and alcohol, depending on the situation. Individuals are encouraged to use voluntary rehabilitation programs and may be required to receive mandatory counseling and treatment. If a student is suspected by the university police to have violated state and/or federal laws with regard to illegal drugs or use of alcohol, the student will be subject to arrest and criminal prosecution.

All students suspected of substance abuse violations may be referred to the director of Judicial Affairs. The student will be subject to a due process hearing in accordance with institutional disciplinary guidelines. Disciplinary action at the university will normally proceed whether or not criminal charges related to the same incident have been processed and sustained. The university encourages voluntary counseling and may require participation in an approved treatment program.

Where there is evidence that the continued presence of a student on the university campus poses a substantial threat to self, others, or to the stability and continuance of normal university functions, the vice president for Student Affairs and associate provost, or a designee, may immediately suspend, on an emergency basis, a student from any or all university activities (including university housing programs and class attendance) pending a hearing or medical evaluation. A hearing will be scheduled in a timely fashion to adjudicate the case as swiftly as possible. During the period of emergency suspension, if the student needs access to the campus, arrangements can be made for the student to come to campus, on a limited

basis, to attend counseling sessions and/or conduct business, usually with an escort. Such an interim suspension can become effective immediately without prior notice.

The following penalties described herein are in addition to those penalties listed in the section on general procedures and penalties for suspected drug use, possession, or sale. The specific penalty prescribed will usually depend on the nature of the alleged violation. Penalties may be administered following a judicial hearing where the suspected offender has been found to be guilty of specific charges. Possible penalties for student violations may include, but are not limited to, the following:

**PENALTY ONE:** The student user may be subject to referral to a mandatory drug treatment/education program, and/or the termination of the university housing contract, denial of access to university housing halls and social functions. If suspended, permission to return to school will be considered after the period of suspension and a verified report of attendance in a drug treatment/education program. Repeat offenders may be subject to more severe actions.

**PENALTY TWO:** The student distributor may be subject to referral to a mandatory drug treatment/education program and/or suspension from school. Permission to return to school will be considered after the period of suspension and a verified report of attendance in a drug treatment/education program. Repeat offenders may be subject to more severe actions.

**PENALTY THREE:** The student conspirator, who brings together the seller and the buyer, may be subject to referral to a mandatory drug treatment/education program and/or suspension. Permission to return to school after the period of suspension will be considered with verified attendance in a drug treatment/education program.

**PENALTY FOUR:** Greek Organizations, that have been found to tolerate drug use, possession, and/or sale on the part of their members will be subject to a drug education program for the group.

Maryland law [Art. 27, 8, 286, and 287

Annotated Code of Maryland (1990)] states that persons who manufacture, distribute, dispense, or possess a controlled dangerous substance may be subject to imprisonment (length of time varies) and fines (\$15,000 and up).

**Recipients of Federal Grant/Contracts/Awards** Any faculty, staff member or student applying 1) for a federal grant/contract in which an in-the-workplace drug-free policy has been required, 2) for a "Pell Grant" or any other student/faculty grant/award or fellowship in which an in-the-workplace drug-free policy has been required, and 3) for a subcontract with the Department of Defense, will be required to comply in accordance with federal regulations.

1. Each individual must certify in writing to abide by the terms of the Towson University Drug-Free Workplace Policy.

2. Each individual must notify the Office of University Research Services or the Office of Financial Aid of any criminal drug conviction occurring in the workplace, no later than five days after conviction.

The university will be responsible for notifying any contracting or granting agency, within 10 days of employee notification otherwise receiving actual notice, of a conviction in (2) above.

If a grant or award is directly made to an individual, rather than the institution, the individual will certify in writing to the institution to not engage in unlawful manufacture, distribution, dispensation, possession, or use of any controlled substance in the workplace or while conducting any work activity with the grant/contract and will abide by the terms of this Towson University Substance Abuse Policy.

#### **Relationship with External Contractors**

The university is committed to encourage all non-state entities, who do business with the university or otherwise receive funds from the university, to make a "good faith" effort to eliminate illegal drug abuse from their workplace. Therefore, in accordance with Executive Order 01.01.1991.16, the university shall take whatever action necessary and

appropriate to require a drug-free workplace, in accordance with applicable federal and state law, on each recipient of a state contract, grant, loan or other state funding instrument.

#### **Biennial Review**

The Towson University Substance Abuse Policy and Program will be reviewed every two years (a) to determine effectiveness and the need to implement change as necessary, and (b) to assure that sanctions developed and implemented were consistently enforced.

#### **Responsibility**

The president of Towson University will appoint a campus coordinator for all substance and alcohol abuse programs. This administrator will be responsible to the president for

the implementation of this policy and the university's Drug Free Workplace and Drug Free Campus plans. The president shall also hold responsible all faculty, staff, and students for supporting the campus coordinator, especially those who occupy positions of leadership and supervision.

#### **"Good Faith" Efforts**

Towson University will at all times make a "good faith" effort to maintain a drug-free and substance abuse free workplace and campus through the implementation of this policy.

## Appendix E

### GRADUATE STUDENT PROCEDURES FOR APPEALS, HEARINGS AND GRIEVANCES

#### STUDENT RIGHTS AND RESPONSIBILITIES

**Rights:** The student is entitled to privacy, expression, nondiscrimination, nonharassment and appeal.

**Responsibilities:** The student is responsible for: (1) being knowledgeable of and observing all university and Graduate School policies, regulations, procedures and academic requirements, including specific requirements of the program; and (2) participating in the maintenance of a high standard of academic integrity.

Appeals and grievances are initiated by the student. Hearings are initiated by the university.

#### APPEALS

**Exceptions to Policies:** A student may petition for an exception to academic and admissions policies and procedures on either procedural or substantive grounds. The petition must be made to the dean of the Graduate School. If not satisfied with the dean's decision, the student may submit a written appeal to the Graduate Studies Committee, c/o the Graduate School. Appeal of a Graduate Studies Committee decision is made in writing to the provost of the university.

Appeals of academic and admissions policies other than those that follow must adhere to the appeals procedure stated above.

**Dismissal from Programs:** The dean of the Graduate School may dismiss a student for cause from a program based on academic or other Graduate School policies or on the recommendation of a department. A student who is dismissed will be notified in writing of the dismissal. The student's written appeal must be received in the Graduate School within 15 working days of the date of the notification of dismissal.

**Grades:** A student appealing a course grade must make all reasonable efforts to resolve the matter informally in the following sequence: (1) he or she must meet with the instructor; (2) if not satisfied, the student meets with the department chairperson; (3) if still not satisfied, the student meets with the dean of the college or school. If the problem is not resolved to the student's satisfaction, he or she may appeal in writing to the Graduate Studies Committee. The appeal will be reviewed only after the above steps have been taken, and must be received by the Graduate Studies Committee no later than the end of the semester following the one in which the grade was received.

The Graduate Studies Committee reviews the appeal, and will send it to the Student Appeals Committee only if there is sufficient evidence that a grade has not been determined in accordance with the terms set forth by the instructor.

**Academic Integrity:** Instructors are responsible for maintaining the academic integrity of courses and will initially handle problems of classroom conduct, including, but not limited to, cheating and plagiarism. The instructor may lower the student's grade or give a failing grade for the course. A student appealing an instructor's decision must make all reasonable effort to resolve the matter informally in the following sequence: (1) he or she must meet with the instructor; (2) if not satisfied, the student meets with the department chairperson; (3) if the problem is not resolved to the student's satisfaction, he or she may appeal in writing to the Graduate Studies Committee. The appeal will be reviewed only after the above steps have been taken, and must be received by the Graduate Studies Committee no later than the end of the semester following the one in which the grade was received.

#### HEARINGS

Students are expected to maintain a high standard of academic integrity. If a violation of academic integrity occurs in a classroom



and if the instructor decides that further action beyond that taken within the course is warranted, he or she will notify the student that a formal charge will be made to the Graduate School Committee. A written report of the incident will be filed with the committee.

In cases of violation of Graduate School policies, efforts will be made by the Graduate School administration to clarify and to allow the student the opportunity to address and resolve the issue before any charges are made in writing to the Graduate Studies Committee.

A hearing before the Graduate Studies Committee is held whenever charges are made against a student by the Graduate School for infraction of Graduate School policy which includes, but is not limited to, academic integrity, falsification of documents, or other acts of misrepresentation. Disciplinary action by the committee may include dismissal from the Graduate School.

#### **Hearing Procedures:**

1. The proceedings are recorded.
2. The chairperson of the Graduate Studies Committee explains the purpose of the hearing.
3. The chairperson reads the charges. The student is present for the hearing. If the student does not appear, this will be stated for the record and construed as a plea of guilty.
4. The student may be accompanied by a friendly observer. This party may not be or act as legal counsel, except when concurrent criminal charges have been filed. Then counsel may advise the accused party but may not otherwise participate in the hearing.
5. Evidence, either in writing or by testimony of witness, is presented. Witnesses may be questioned by the committee and the student.
6. The student is afforded an opportunity to present his or her side of the story and to call witnesses. Character witnesses will not be heard. Witnesses for the student may be questioned by the committee and then be excused.
7. The committee members may ask questions of the student, the instructor and the graduate coordinator.
8. The student may ask questions and make a closing statement.
9. The student and other noncommittee members are excused.
10. The committee deliberates in executive session and renders a decision. These deliberations are not recorded.
11. The student is notified of the decision by letter within 15 days of the hearing. When appropriate, the notification includes instructions on further appeals.
12. The recording will be kept on file in the Graduate School for one year.

#### **GRIEVANCES**

**Redress of Grievance:** Grievances based on the following grounds are made to the judicial affairs officer, who will instruct the student on submitting a written grievance:

1. a flaw in the student's right of due process
2. evident bias in the decision of the hearing body
3. inconsistent or overly severe sanction imposed
4. new evidence of insufficient consideration of all aspects of the situation

**Discrimination and Harassment:** The university complies with all state and federal civil rights legislation. The university's policy is to prohibit discrimination against any individual for reason of race, color, religion, national origin, political affiliation, marital status, sexual orientation, disability, veteran status or other nonmerit factor.

If a student alleges discrimination and/or harassment, he or she shall make all reasonable efforts to resolve the issue(s) with, and in the following order: (1) the instructor (2) the department chairperson and (3) the dean of the college or school within 30 days of the alleged incident. The student should confer with the fair practice officer if issues are not satisfactorily resolved. A student making a formal complaint of discrimination and/or harassment must submit a written statement to the Office of Fair Practices within 180 days of the date of the alleged incident.



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**From I-95 (northbound and southbound):**

Take the Baltimore Beltway I-695 west (toward Towson). Take exit 25, Charles Street, south. Proceed approximately 1.7 miles. Turn left on Towsontown Boulevard, and proceed to the first stoplight. Turn right on Osler Drive and make the first right to the Enrollment Services Center parking lot.

**From I-83 (northbound and southbound):**

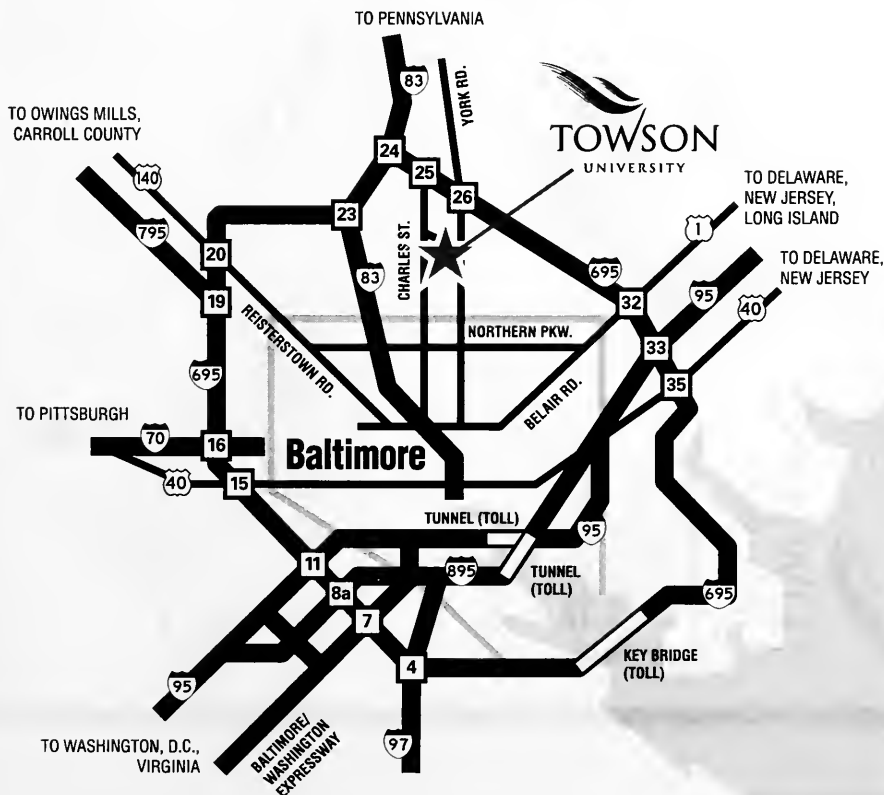
Take the Baltimore Beltway I-695 east (toward Towson). Take exit 25, Charles Street, south. Proceed approximately 1.7 miles. Turn left on Towsontown Boulevard, and proceed to the first stoplight. Turn right on Osler Drive and make the first right to the Enrollment Services Center parking lot.

**From I-70 (eastbound):**

Take the Baltimore Beltway I-695 north (toward Towson). Take exit 25, Charles Street, south. Proceed approximately 1.7 miles. Turn left on Towsontown Boulevard, and proceed to the first stoplight. Turn right on Osler Drive and make the first right to the Enrollment Services Center parking lot.

**From Baltimore (Penn Station):**

Proceed north on Charles Street for five miles. Turn right on Towsontown Boulevard, and proceed to the first stoplight. Turn right on Osler Drive and make the first right to the Enrollment Services Center parking lot.





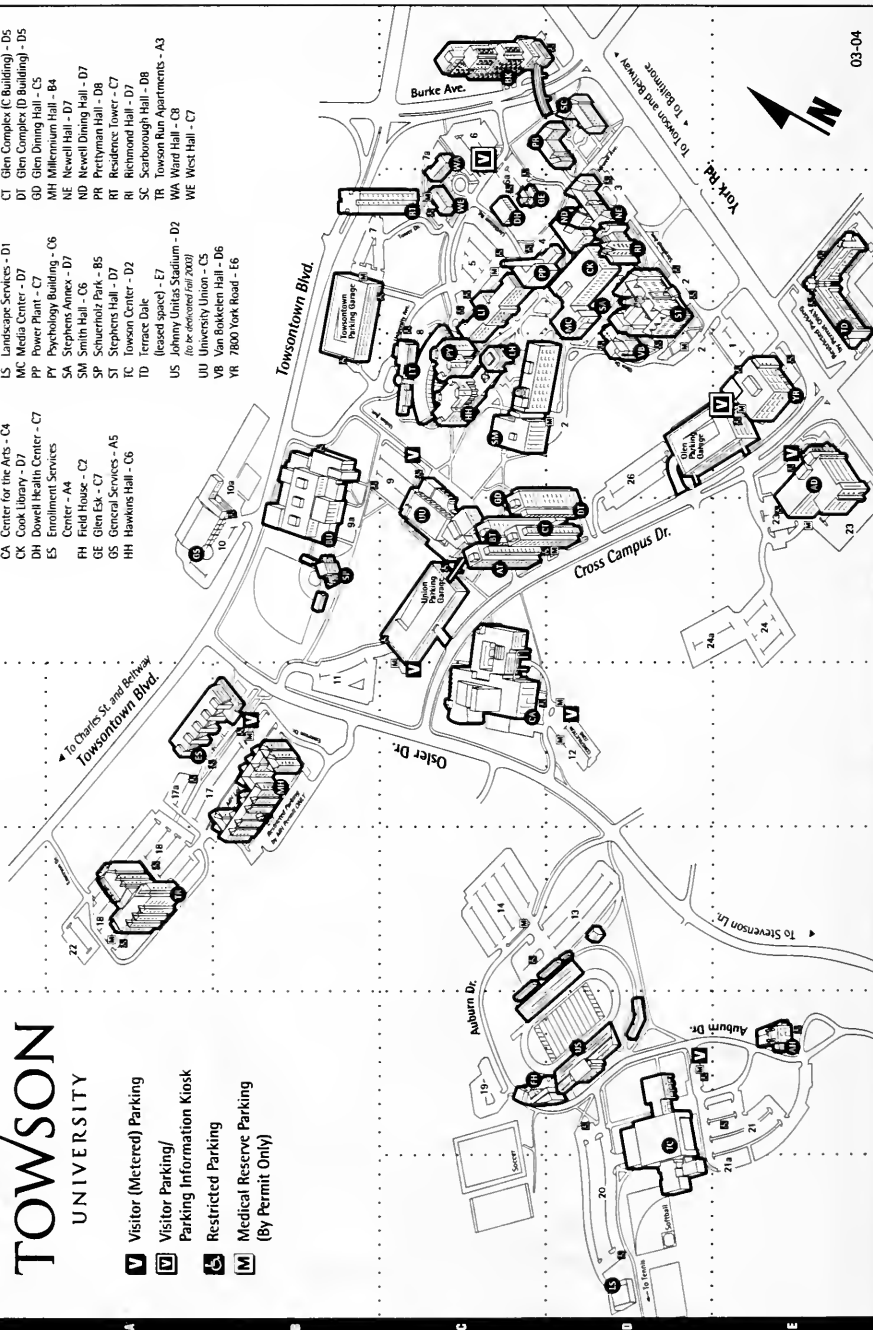
- Visitor (Metered) Parking
- Visitor Parking/  
Parking Information Kiosk
- Restricted Parking
- Medical Reserve Parking  
(By Permit Only)

# Academic and Administrative Buildings

The Admissions Office is located in the Enrollment Services (ES) building.

- AD Administration Building - E6
- U1 Lecture Hall - C5
- AH Auburn House - E2
- BU Burdick Hall - B5
- LA Lida Lee Hall - C6
- LS Landscape Services - D1
- MC Media Center - D7
- PP Power Plant - C7
- PS Psychology Building - C6
- SA Stephens Annex - D7
- SP Schuetz Park - B5
- SM Smith Hall - C6
- ST Stephens Hall - D7
- TC Towson Center - D2
- TD Terrace Dale
- ES Enrollment Services
- Center - A4
- PH Field House - C7
- GE Glen Esk - C7
- GS General Services - A5
- HH Hawkins Hall - C6
- US University Stadium - D2
- UJ University Union - C5
- V8 Van Bokkelen Hall - D6
- YR 7800 York Road - E6

- ## Residence Buildings
- BK Burkshire Apartments - C8
  - AT Glen Complex (A Building) - C5
  - BT Glen Complex (B Building) - C5
  - CT Glen Complex (C Building) - D5
  - DT Glen Complex (D Building) - D5
  - GO Glen Dining Hall - C5
  - MH Millennium Hall - B4
  - NE Newell Hall - D7
  - ND Newell Dining Hall - D7
  - PH Prettyman Hall - D8
  - RI Residence Tower - C7
  - RI Residence Tower - D7
  - SC Scarborough Hall - D8
  - TS Towson Sun Apartments - A3
  - WA Wood Hall - C6
  - WE West Hall - C7





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